UNIVERSITY OF TORONTO

University of Toronto Pension Plan

Annual Financial Report

For the Year Ended June 30, 2016

University of Toronto Pension Plan[1] Eleven-year Review

(Canadian $ millions)	**2016**	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
CHANGE IN NET ASSETS											
Income											
Investment income	**$69.6**	$465.9	$543.3	$340.0	$47.5	$296.4	$189.8	($749.7)	($153.7)	$522.4	$206.2
Contributions											
Members/transfers in	**66.2**	63.8	56.6	47.3	42.1	42.4	38.1	37.3	35.4	33.0	30.3
University	**180.3**	165.3	311.2	161.4	141.0	242.9	88.4	87.1	71.4	69.4	84.0
Total income	**316.1**	695.0	911.1	548.7	230.6	581.7	316.3	(625.3)	(46.9)	624.8	320.5
Expenditures											
Benefits paid/transfers out	**216.6**	203.2	189.0	185.9	173.6	160.4	150.5	148.8	155.0	141.1	129.8
Investment expenses	**39.6**	35.2	28.8	25.3	24.9	23.4	23.1	27.1	26.8	23.8	14.5
Client service expenses	**2.0**	1.9	1.9	2.4	2.2	2.2	2.3	2.6	2.5	2.3	2.1
Total expenditures	**258.2**	240.3	219.7	213.6	200.7	186.0	175.9	178.5	184.3	167.2	146.4
Increase/(decrease) in net assets	**$57.9**	$454.7	$691.4	$335.1	$29.9	$395.7	$140.4	($803.8)	($231.2)	$457.6	$174.1
NET ASSETS											
Investments											
Fixed income											
Bonds	**$647.7**	$969.3	$865.8	$659.7	$641.8	$526.9	$416.9	$319.9	$660.8	$689.1	$560.1
Public Equities											
Canadian	**279.6**	328.2	365.7	249.6	430.4	393.5	279.3	207.2	443.0	473.4	307.4
Non-Canadian	**1,109.3**	1,105.3	1,038.8	776.3	530.5	799.1	614.8	557.1	1,018.3	1,253.5	1,025.6
Private equities	**654.1**	599.5	441.5	396.9	342.9	340.5	366.8	291.7	246.2	125.3	85.6
Commodities	**43.6**	58.0	56.4	59.1	53.8	53.2	49.8	39.7	42.7	79.8	71.9
Real assets											
Real estate	**45.4**	66.5	76.5	117.0	81.2	73.0	57.1	58.4	75.8	44.9	18.0
Infrastructure	**18.9**	18.2	24.3	26.8	26.5	26.4	20.7	14.0	7.8	0.0	0.0
Hedge Funds	**583.3**	621.7	436.4	417.8	376.6	313.8	356.8	394.2	236.2	205.9	463.1
Money market	**738.2**	329.1	276.8	231.1	95.2	4.8	18.2	154.5	139.9	61.8	35.5
Derivative-related net receivable (payable)	**(2.9)**	(32.6)	24.9	(15.3)	3.1	19.8	(23.9)	(19.0)	(41.0)	121.4	29.3
Net investments	**4,117.2**	4,063.2	3,607.1	2,919.0	2,582.0	2,551.0	2,156.5	2,017.7	2,829.7	3,055.1	2,596.5
Other assets	**18.5**	17.2	16.1	16.1	14.5	13.6	13.2	12.6	12.9	10.7	12.2
Total assets	**4,135.7**	4,080.4	3,623.2	2,935.1	2,596.5	2,564.6	2,169.7	2,030.3	2,842.6	3,065.8	2,608.7
Liabilities	**(4.3)**	(7.0)	(4.4)	(7.7)	(4.2)	(2.2)	(3.0)	(4.0)	(12.5)	(4.5)	(5.0)
Net assets	**4,131.4**	4,073.4	3,618.8	2,927.4	2,592.3	2,562.4	2,166.7	2,026.3	2,830.1	3,061.3	2,603.7
Accrued pension benefits	**4,704.5**	4,519.4	4,348.2	3,916.6	3,748.8	3,559.6	3,235.0	3,090.4	2,993.8	2,861.1	2,649.2
GOING CONCERN (DEFICIT)/SURPLUS	**($573.1)**	($446.0)	($729.5)	($989.2)	($1,156.5)	($997.2)	($1,068.3)	($1,064.1)	($163.7)	$200.2	($45.5)
SOLVENCY (DEFICIT)/SURPLUS	**(1,681.0)**	(1,102.0)	(1,054.9)	(1,363.8)	(1,811.0)	(1,057.6)	(1,216.4)	(913.0)	(62.3)	317.6	26.3
HYPOTHETICAL WIND-UP DEFICIT	**(3,761.8)**	(2,979.8)	(2,811.1)	(3,004.9)	(3,205.6)	(2,355.3)	(2,229.6)	(1,893.7)	(1,174.1)	(524.6)	(827.8)
PERFORMANCE (%)											
Rate of return	**0.7**	11.9	17.4	12.1	0.9	12.7	8.2	(27.6)	(5.9)	20.0	7.0
Target return	**5.4**	5.0	6.2	5.2	5.5	7.2	5.0	3.7	7.1	6.2	6.5
PARTICIPANTS	**18,823**	18,358	17,948	17,503	17,113	16,702	16,311	15,865	15,527	15,031	14,562
GOING CONCERN KEY ACTUARIAL ASSUMPTIONS											
Increase in consumer price index (CPI)	**2.00%**	2.00%	2.00%	2.25%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Increase in salaries	**4.00%**	4.00%	4.00%	4.25%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%
Discount rate on liabilities	**5.75%**	5.75%	5.75%	6.00%	6.25%	6.25%	6.50%	6.50%	6.50%	6.50%	6.50%

[1] *The University of Toronto Pension Plan and the University of Toronto (OISE) Pension Plan were merged effective July 1, 2014. All of the above financial information is presented as if the two plans were merged throughout the entire period.*

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Purpose of this Report

The Governing Council of the University of Toronto (the “University of Toronto” or the “University”) provides pension benefits to current and future retired members via a registered defined benefit pension plan - the University of Toronto Pension Plan (“RPP”)[2].

The University also provides pension benefits via a Supplemental Retirement Arrangement (“SRA”), an unregistered arrangement that provided pensions above the maximum pension benefit allowed under the Income Tax Act, up to a University specified maximum salary. This maximum pension benefit now exceeds $150,000 (see section on Pension Benefit Provisions), and therefore no additional current service cost accrues in the SRA. All assets that supported the SRA have been transferred to the RPP, and the SRA is now supported by the University operating budget. See Appendix 2 of this report for more information on the SRA.

The Governing Council of the University of Toronto is the legal administrator of the registered RPP, which is a separate legal entity.

The Pension Committee of Governing Council is composed of 11 members of Governing Council and 9 members representing employee groups with members who participate in the pension plan. It has delegated authority[3] to act for Governing Council in respect of the administration of the pension plan except for matters which Governing Council or its Business Board are required by statute to approve, or which are reserved to Governing Council or the Business Board via the Pension Committee terms of reference, as amended from time to time by Governing Council.

Plan advisors are State Street Trust Company (custodian of assets), Aon Hewitt (actuaries), Ernst & Young LLP (external auditors) and University of Toronto Asset Management Corporation (“UTAM”, investment manager).

The Vice-President, Human Resources and Equity is responsible for formulation of pension policy, member communication, benefits administration and negotiation of benefits. The Chief Financial Officer is responsible for the financial administration of the funds including liaison with the custodian, actuarial consultant, investment manager and external auditors.

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[2] *The University of Toronto Pension Plan includes the former University of Toronto (OISE) Pension Plan (merged into the U of T plan effective July 1, 2014). The Financial Services Commission of Ontario approved this merger in March 2016 and the assets were transferred from the OISE plan into the U of T plan on June 30, 2016. In the remainder of this report, the term “plan” will refer to both former plans in total, unless otherwise specified.*

[3] *The Pension Committee performs the role with respect to pension plan administration that was previously delegated by the Governing Council to the Business Board. The general limitations on that delegated authority are identical to those that apply to the Governing Council’s delegation of authority to the Business Board.*

This report provides an evaluation of the financial health of the pension plan. It also provides the status of the pension liabilities, pension assets and pension deficit for the RPP. Included in this report are links to the audited financial statements for the RPP at June 30, 2016, the actuarial reports for the RPP and the SRA, at July 1, 2016, and the Statement of Investment Policies and Procedures for the Pension Master Trust which is approved annually, most recently on June 24, 2016.

How a Defined Benefit Pension Plan Works

A pension plan is any arrangement by which an employer promises to provide retirement income to members. There are essentially two types of pension plans currently permitted under pension legislation in Ontario – a defined contribution plan and a defined benefit plan. A defined contribution plan provides pension benefits to each retired member on the basis of member and employer contributions and investment earnings on those contributions over time. The ultimate pension benefit depends on the amount of funding contributed and the investment earnings both before and after the date of retirement. The investment risk is borne by the member in a defined contribution plan.

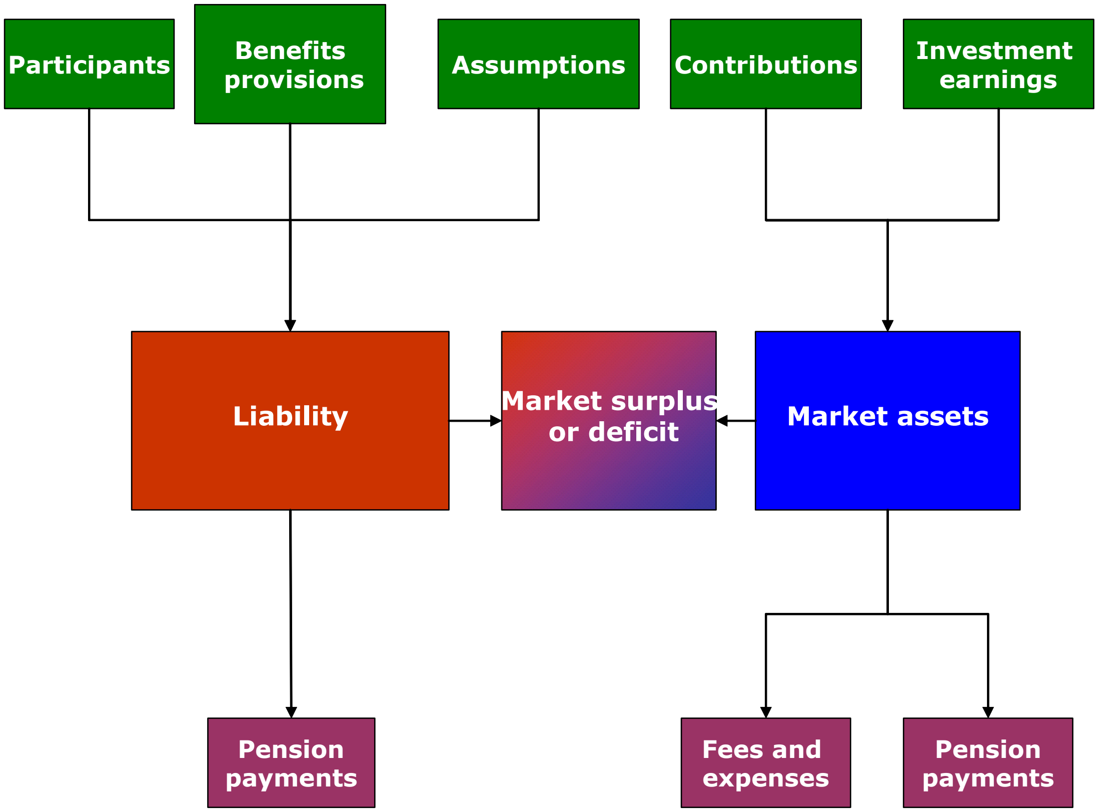
A defined benefit pension plan provides pension benefits to each retiring member on the basis of defined percentages applied to salary and years of service. Members and the employer provide funding, and the member will ultimately receive pension benefits that result from the salary and years of service formula. The investment risk is borne by the employer in a defined benefit plan.

The University of Toronto Pension Plan is a defined benefit plan. For each year that the member works and participates in the plan, an additional year of pensionable service is earned. At retirement, the number of years of pensionable service is multiplied by a percentage of the average of the highest 36 months of average earnings to determine the annual pension payable to that person. After retirement, pension payments are indexed[4].

The objective of a defined benefit pension plan is to ensure that there are sufficient resources to pay for the current pensions of retired members and to ensure that there will be sufficient funds to pay for the pensions of members who will retire in the future. The plan engages an actuary to determine what the annual funding of the plan must be to ensure that this objective is met.

The challenge for defined benefit plans is to find a way to reasonably estimate the current net present value of what pensions will be paid to retired members over time (the liabilities) and to set aside money now to support payment of those pensions in future (the assets). The relationship is illustrated as follows:

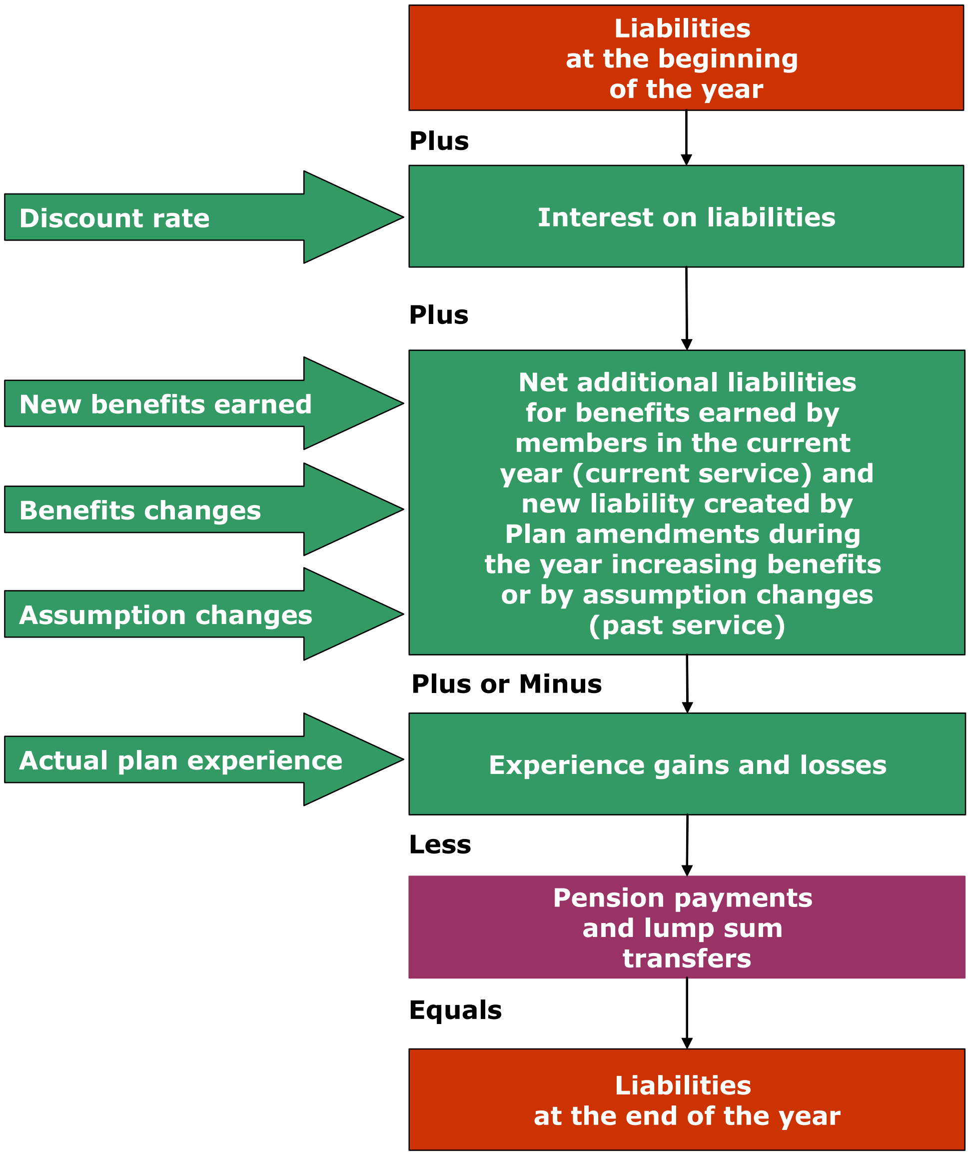
[4] *Pensions are increased as of July 1 each year by the greater of (a) the increase in the Consumer Price Index for Canada (CPI) for the previous calendar year minus 4.0%; or (b) 75% of the increase in the CPI for the previous calendar year to a maximum CPI increase of 8%, plus 60% of the increase in CPI in excess of 8%.*



As you can see from the diagram, the difference between the estimated net present value of current and future pensions (the liability), and the amount of funds actually on hand (the market assets) is the market surplus or deficit.

The Liability

The net present value of current and future pensions (the liability) depends on assumptions made about the members in the pension plan, including their length of service, their estimated salaries at retirement, the kinds of benefits they are receiving or will receive, and future inflation. The liability represents the discounted net present value of pension benefits earned for service up to the valuation date, based on those assumptions. The following table shows how liabilities change from year to year.



As shown above, liabilities change when:

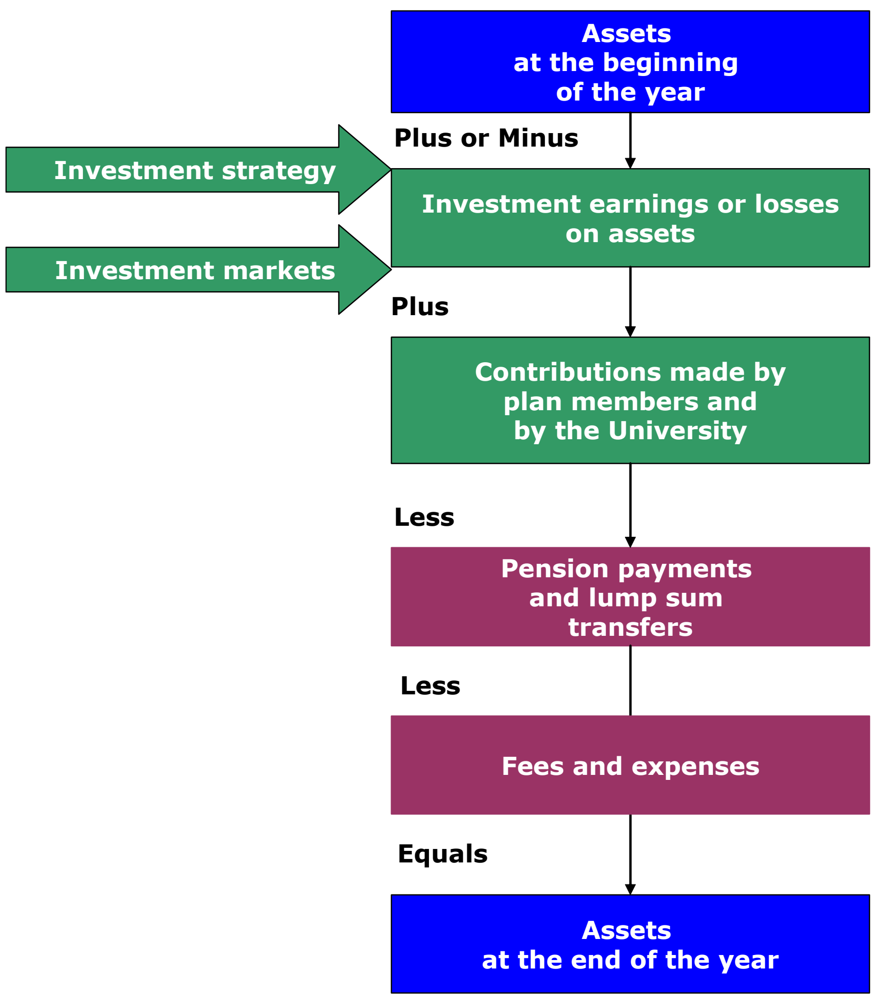
- members work an additional year, thus increasing their pension benefit at retirement. This is known as current service and increases the liability.
- members receive a larger pension benefit for the same salary and years of service through improvements to past service benefits. This increases the liability.
- new participants are added to the plan. This adds to the liability over time.
- assumptions that forecast the amount of pension benefits to be paid in future (e.g. salary increase assumption) change. These changes may increase or decrease the liability.
- assumptions that discount future liabilities to the present change. Increases in the discount rate DECREASE the liability while decreases in the discount rate INCREASE the liability.

- actual experience in the plan (e.g. actual salary increases, terminations, longevity, etc.) results in actual benefit payments that are different from those expected according to the actuarial assumptions. Actual experience may increase or decrease the liability.

Liabilities also have interest calculated on them, just like any other discounted obligation that has to be paid in future. This interest is added to the liabilities and also increases them.

The Assets

The amount of money that has actually been set aside (the assets) comes from only two sources: 1) contributions from members and from the University (including transfers in from other plans), and 2) investment earnings. The pension plan financial statements report the assets at fair value (which is essentially market value) at June 30. The following table shows how assets change from year to year:



The Surplus or Deficit

The difference between the liabilities and assets is a surplus if the assets exceed liabilities or a deficit if liabilities exceed assets. When the assets are valued at market value, the difference is a "market" surplus or deficit. Pension regulation also permits an "actuarial" surplus or deficit, whereby changes in market value are smoothed over more than one year instead of being recognized immediately. The actuarial surplus is used for certain requirements under the Pension Benefits Act. However, for our financial evaluation purposes, to assess the financial health of our plan, the market surplus or deficit is more useful since it records all gains or losses immediately. This report focuses primarily on the market value of assets and the market surplus or deficit.

Tools for Assessment of Pensions

The key tools for assessing the current financial health of the pension plan are financial statements and actuarial reports:

- **Pension plan financial statements** provide an audited confirmation at the valuation date of the fair value (essentially market value) of the pension assets of the RPP. It also provides an audited confirmation of the pension obligations of the RPP at the valuation date. The plan fiscal year for the RPP, which is a registered plan and separate legal entity, is July 1 to June 30. Assets for the plan are valued at June 30 of each year and reported on the registered pension plan balance sheet, which is called the *statement of financial position*. The changes in assets from one year to the next are shown on the registered pension plan income statement, which is called the *statement of changes in net assets available for benefits*. The changes in the pension liabilities from one year to the next are shown on the *statement of changes in pension obligations*.

- **Pension plan actuarial reports** estimate the net present value of the pension benefits of the RPP based on assumptions, as noted earlier, and compare that net present value to the audited assets reported in the financial statements to determine the financial status of the plan at the valuation date. For the RPP, the actuarial valuation date is July 1 of each year, incorporating the annual salary increases that become effective on that date.

Various financial reporting and regulatory requirements result in four types of valuations that make different assumptions and that produce very different results. Under these different types of valuations, the liabilities can change dramatically. However the assets are normally valued at fair value as of the date of valuation, with some very minor adjustments made to asset values for different types of valuations. Here are the similarities and differences between each type of valuation.

Going Concern Actuarial Valuation:

This valuation assumes that the pension plan is a going concern. This means that it is expected to be continuing to operate for the foreseeable future. Assumptions that determine the net present value of the benefits are long-term. Assets are valued at the fair value as of the date of valuation as reported on the audited financial statements. This valuation is done for a single point in time, as of July 1 each year, and is used for purposes of funding the pension plan.

Solvency Actuarial Valuation:

This valuation varies from the going concern valuation in that it assumes the plan will be wound-up on the valuation date and uses a market interest rate assumption. It assumes that benefits will be settled through purchase of annuities or payment of lump sum values. However, indexation (inflation) after termination or retirement is excluded from the liability calculation, in accordance with regulation. This valuation utilizes the audited fair value of the assets as reported on the audited financial statements, and adjusts that audited value with a provision for hypothetical wind-up costs. This valuation is done on the plan year, as of July 1 each year. To the extent there is a deficiency under a filed solvency valuation, additional funding may be required.

Hypothetical Wind-up Actuarial Valuation:

This valuation takes the solvency valuation and provides for the indexation that occurs before and after retirement. It also assumes that benefits will be settled through purchase of annuities or payment of lump sum values. And it also adjusts the audited fair value of the assets with a provision for hypothetical wind-up costs. This valuation is done on the plan year, as of July 1 each year.

Accounting Valuation:

This valuation is done for accounting purposes and estimates the values that are required to be included in the University's financial statements (not the pension plan financial statements). This valuation is done on the University's fiscal year end, April 30. Pension liabilities are valued using the funding assumptions utilized for the going concern valuation.

While it is important to be aware of the existence of these various valuations and their purposes, this report assumes that the pension plan is a going concern and evaluates pension plan financial health using the going concern actuarial valuation. The following sections will show the status of the RPP at July 1, 2016 and will apply the elements of defined benefit pension plans (shown in the diagram on page 7) to the University pension plan, with particular emphasis on the assumptions, the contributions, and the investment earnings, and their associated policies and strategies.

Status of the Pension Plan at July 1, 2016

At July 1, 2016, the going concern accrued liabilities and market value of assets for the RPP and the pension reserve were (in thousands of dollars):

July 1, 2016	Going Concern Liabilities	Market Value of Assets	Market Surplus (Deficit)	Market Surplus (Deficit) as % of Liabilities
RPP	4,704.5	4,131.4	(573.1)	(12.2%)
Pension Reserve		11.8	11.8	
Total	4,704.5	4,143.2	(561.3)	(11.9%)

At July 1, 2015, the liabilities and assets for the RPP and the pension reserve were:

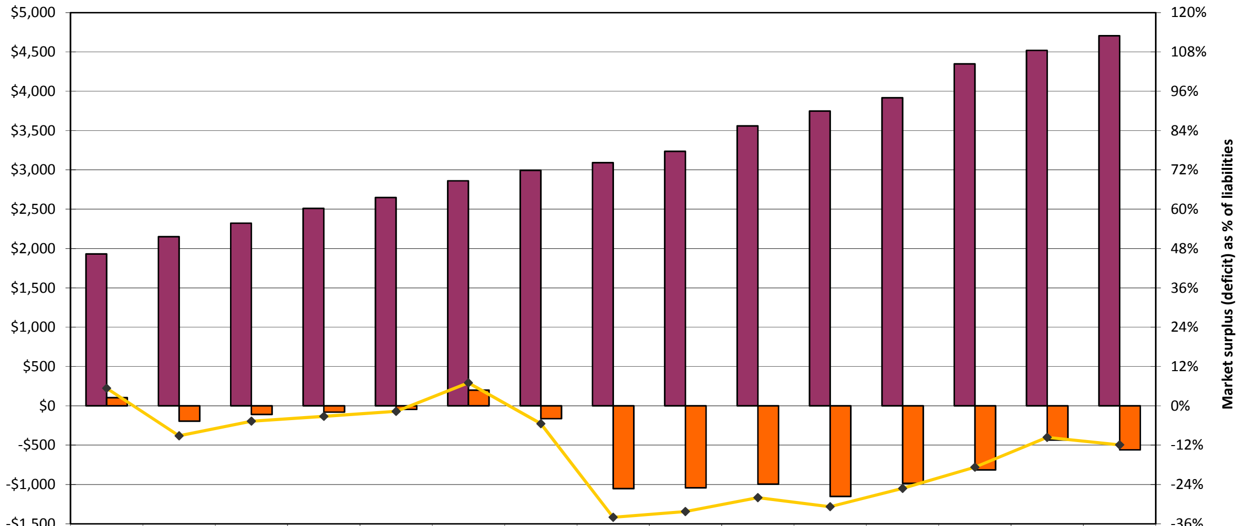
July 1, 2015	Going Concern Liabilities	Market Value of Assets	Market Surplus (Deficit)	Market Surplus (Deficit) as % of Liabilities
RPP	4,519.4	4,073.4	(446.0)	(9.9%)
Pension Reserve		11.8	11.8	
Total	4,519.4	4,085.2	(434.2)	(9.6%)

As you can see from the above tables, the funded status of the RPP worsened between July 1, 2015 and July 1, 2016 due mainly to investment returns of 0.7% which was below the target return of 5.4% (4%[5] plus actual CPI of 1.4%) for the period, partly offset by employer special payments totaling $78.7 million.

A longer history of results for the RPP and the pension reserve is shown on the following chart:

[5] *See the Investment Earnings section which explains in more detail the difference between the target return for investment earnings (4% plus actual CPI) which is one of the tools used for assessing investment performance (in addition to the Reference portfolio), and the 3.75% real return built into the discount rate, which is intended to provide a margin of error for adverse events when calculating plan liabilities.*

University of Toronto Registered Pension Plan and Pension Reserve
Accrued Liabilities and Market Surplus (Deficit)[1]
as at July 1
(millions of dollars)



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total accrued liabilities	1,930.8	2,150.1	2,322.6	2,510.7	2,649.2	2,861.1	2,993.8	3,090.4	3,235.0	3,559.6	3,748.8	3,916.6	4,348.2	4,519.4	4,704.5
Total market surplus (deficit)	103.9	(196.4)	(109.0)	(81.1)	(45.5)	200.2	(163.7)	(1,051.7)	(1,043.4)	(997.2)	(1,154.1)	(986.8)	(814.6)	(434.2)	(561.3)
Market surplus (deficit) as a % of liabilities	5.4%	-9.1%	-4.7%	-3.2%	-1.7%	7.0%	-5.5%	-34.0%	-32.3%	-28.0%	-30.8%	-25.2%	-18.7%	-9.6%	-11.9%

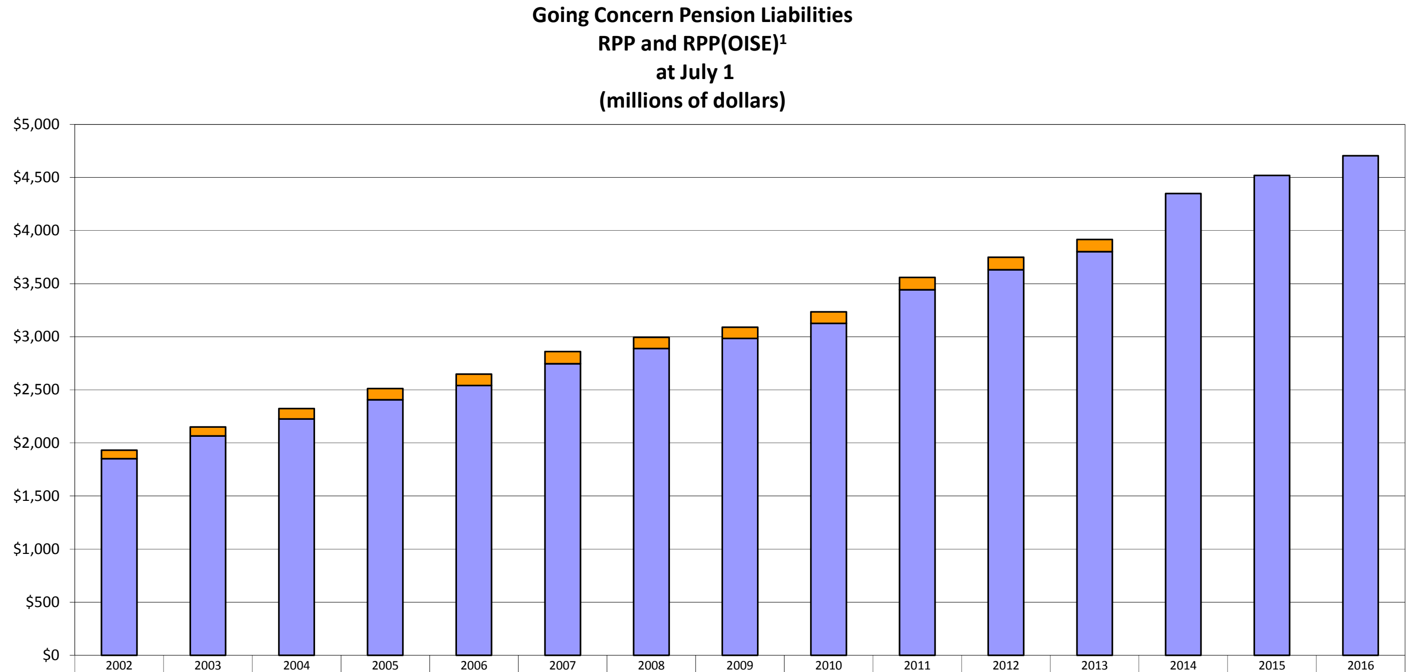
[1] Total market surplus (deficit) includes the University's pension reserve

As you can see from the above chart, the plan was in surplus in 2002. A deficit emerged in 2003 which was extinguished by 2007. Beginning in 2008, and much more pronounced in 2009, the impact of the global financial crisis was to reduce market returns significantly. The overall financial position of the plan was essentially unchanged between 2009 and 2010 and improved somewhat in 2011 as a result of a rebound in markets and additional special contributions from the University. In 2012, with markets underperforming target returns, the market deficit of the plan increased slightly. In 2013 through 2015, the financial position of the plan improved significantly, mainly as a result of investment returns in excess of target returns and significant additional special payments, partially offset by changes to certain actuarial assumptions. In 2016, the markets underperformed target returns, resulting in an increase in the market deficit of the plan.

Pension Liabilities

Going concern pension plan liabilities for the RPP totalled $4,704.5 million at July 1, 2016.

The growth in these liabilities since 2002 is shown on the following chart.



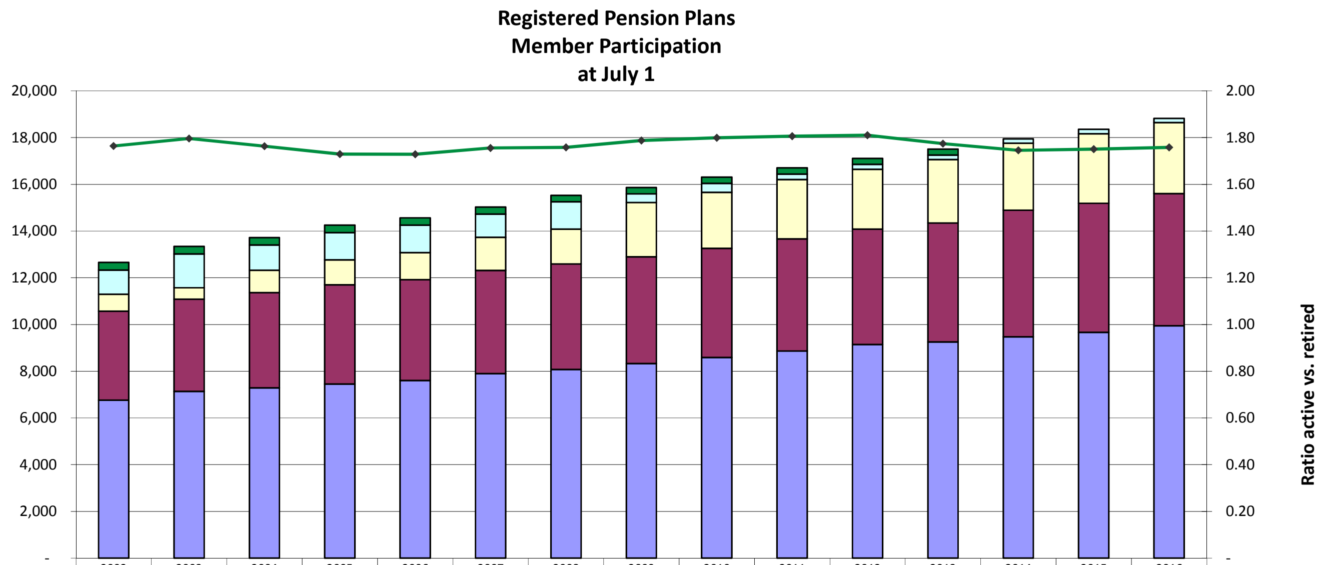
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
RPP(OISE) liabilities	77.9	83.4	97.6	103.7	108.6	115.3	104.2	106.6	109.0	116.1	117.8	116.0			
RPP liabilities	1,852.9	2,066.7	2,225.0	2,407.0	2,540.6	2,745.8	2,889.6	2,983.8	3,126.0	3,443.5	3,631.0	3,800.6	4,348.2	4,519.4	4,704.5

[1] The RPP(OISE) was merged with the RPP effective July 1, 2014

As noted earlier, pension plan liabilities are valued at July 1 and are dependent on a number of factors. The following sections will examine the impact of these factors on the total going concern pension plan liabilities for the RPP.

Participants

The RPP is a growing plan, with member participation increasing over time. An increase in the number of plan participants adds to pension liabilities over time. At July 1, 2016, total member participation was 18,823, which includes members of the former RPP(OISE) plan. The chart below shows the active members of the RPP categorized by active, retired, terminated/vested, and suspended/exempt/pending. In addition, all members of the former RPP(OISE) plan are shown for years prior to 2014 (pre-merger).



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
RPP(OISE)	335	323	322	319	308	304	274	270	270	265	259	251			
Suspended, exempt, pending	1,033	1,447	1,076	1,164	1,178	999	1,168	374	382	225	207	192	189	190	182
Terminated, vested	724	489	961	1,072	1,154	1,413	1,493	2,326	2,402	2,546	2,564	2,713	2,864	2,980	3,040
Retired members	3,813	3,942	4,078	4,246	4,323	4,421	4,514	4,569	4,670	4,797	4,934	5,092	5,425	5,522	5,656
Active members	6,759	7,141	7,288	7,452	7,599	7,894	8,078	8,326	8,587	8,869	9,149	9,255	9,470	9,666	9,945
Total RPP	12,329	13,019	13,403	13,934	14,254	14,727	15,253	15,595	16,041	16,437	16,854	17,252	17,948	18,358	18,823
Total RPP and RPP(OISE)	12,664	13,342	13,725	14,253	14,562	15,031	15,527	15,865	16,311	16,702	17,113	17,503			
Ratio active vs. retired	1.76	1.80	1.76	1.73	1.73	1.76	1.76	1.79	1.80	1.81	1.81	1.77	1.75	1.75	1.76

Beginning July 1, 2014, the former RPP(OISE) plan members are included in the RPP.

The continued growth in active membership helps to maintain a stable duration[6] of liabilities, with the ratio of active to retired liabilities remaining relatively constant. It also supports the growth of cash flow into the plan due to increasing contributions from both participants and the University.

Pension Benefit Provisions

The pension benefit is the provision of retirement income to participants in the pension plan. It is calculated on the basis of defined percentages ("benefit rates") applied to the salary and years of pensionable service for each plan participant. Pension benefits are the same for the members in any particular member group.

Benefits improvements arise from negotiations with member groups and from mediation and arbitration and are not normally determined unilaterally.

Key benefit provisions are as follows:

[6] *Duration is a weighted-average sensitivity measure which calculates the average length of time to the payment of benefits.*

Benefits accrual: Pension benefits accrue at the rate of 1.5% of highest average salary up to the average CPP maximum salary (1.6% for USW members, various other unions and non-unionized administrative staff) plus 2.0% of highest average salary in excess of the average CPP maximum salary, up to an average maximum salary per year[7].

Retirement dates: The normal retirement date is the June 30 following the 65th birthday. Retirement is possible within 10 years of the normal retirement date, with a reduction of 5% per year between actual retirement and normal retirement. No reduction is applied once members reach 60 years of age, and meet certain service requirements, which vary by staff group. There is no longer a requirement to retire at age 65.

Cost of living adjustments: The pension benefits of retired members are subject to cost of living adjustments equal to the greater of a) 75% of the increase in the CPI for the previous calendar year to a maximum CPI increase of 8% plus 60% of the increase in CPI in excess of 8% and b) the increase in the CPI for the previous calendar year minus 4.0%. The first cost of living adjustment is made at date of retirement.

Any improvement in the benefit being provided to current retired members and/or to be provided to future retired members results in an increase to the pension liabilities. **There were no benefits improvements during the year ended June 30, 2016.**

When benefits improvements are agreed, they may be implemented in various ways – for active participants only, or for both retired and active participants, on current service only or on both current and past service. When provided for current service, they require current service contributions from members and the University on a go forward basis. When provided for past service as well as current service, they require current service contributions and funding of past service costs as well. Benefits improvements to retired persons, such as augmentation, generate past service costs. There are only two ways of funding defined benefit pension plans, including benefits improvements – contributions and investment

[7] *For Faculty and Librarians covered by the Memorandum of Agreement between the University and UTFA, maximum pensionable salary has increased from $150,000 to $153,000 (January 1, 2014 to December 31, 2014), to $156,000 (January 1, 2015 to December 31, 2015) and to $161,000 (January 1 to December 31, 2016). For administrative staff, the maximum pensionable salary has increased from $150,000 to $153,500 (January 1, 2015 to December 31, 2015), and to $158,000 (January 1, 2016 to December 31, 2016).*

earnings. These elements of defined benefit pension plans will be discussed in later sections of this report.

Assumptions

No one knows what salaries will be for plan participants at retirement, and therefore, what their actual pension benefit will be, nor does anyone know how long plan participants will receive those benefits after retirement or what the cost of living adjustments will be after retirement. Actuarial assumptions are used to estimate the pension benefits that will be paid to current and future retired members in the future. Those estimated pension benefits are then discounted to the present time, using an interest discount rate to calculate the net present value.

Changes in actuarial assumptions impact the value of the liabilities. Some changes increase liabilities while other changes decrease liabilities and some assumptions are interrelated in their impact on the value of the liabilities.

Actuarial assumptions are approved annually by the Pension Committee. All actuarial assumptions can be found in the full actuarial reports located at http://finance.utoronto.ca/reports/pension/.

Key actuarial assumptions at July 1, 2016 are as follows:

Assumption	Description	Impact of assumption change on liabilities
Retirement age	*Academic staff and librarians –* retirement rates from ages 60 to 70, but not earlier than one year after valuation date, subject to early retirement provisions, if applicable. *Administrative Staff, unionized administrative staff, unionized staff and research associates –* age 63, subject to early retirement provisions.	The earlier the retirement age with an unreduced pension, the higher the liability.

Mortality rates:	Canadian Pensioner Mortality 2014 Public Mortality Table with Improvement Scale CPM-B	Increases in life span increase liabilities.
Increase in Consumer Price index (CPI):	2.00% per year	An increase in CPI alone increases liabilities, but should be considered in concert with salary increases and discount rate.
Cost of living adjustments:	1.50% per year (75% of CPI)	An increase in cost of living adjustments increases liabilities.
Increase in CPP maximum salary:	2.75% per year	An increase in CPP maximum salary decreases liability since pensionable service is accumulated at 1.5% or 1.6% up to the CPP maximum salary and at 2.0% over that maximum.
Increase in *Income Tax Act* maximum benefit limit:	$2,890.00 in 2016 increasing by 2.75% per year thereafter and effective each year at January 1 (*previous valuation was $2,818.89*).	An increase in the Income Tax Act maximum pension increases the liability in the RPP.
Increase in Salaries:	4.00% per year (2.00% CPI plus 2.00% merit and promotion/progression).	An increase in the total assumption, whether impacted by CPI or by merit and promotion/progression, increases liabilities.
Interest rate (Discount rate on liabilities):	5.75% per year (2.00% increase in CPI plus 3.75% real investment return, net of fees).	An increase in the interest rate, whether through an increase in CPI or real return, DECREASES liabilities. Conversely, a decrease in the interest rate INCREASES liabilities.

It is very important to note that these assumptions are **long-term** assumptions. In other words, they predict the results over a very long-term horizon.

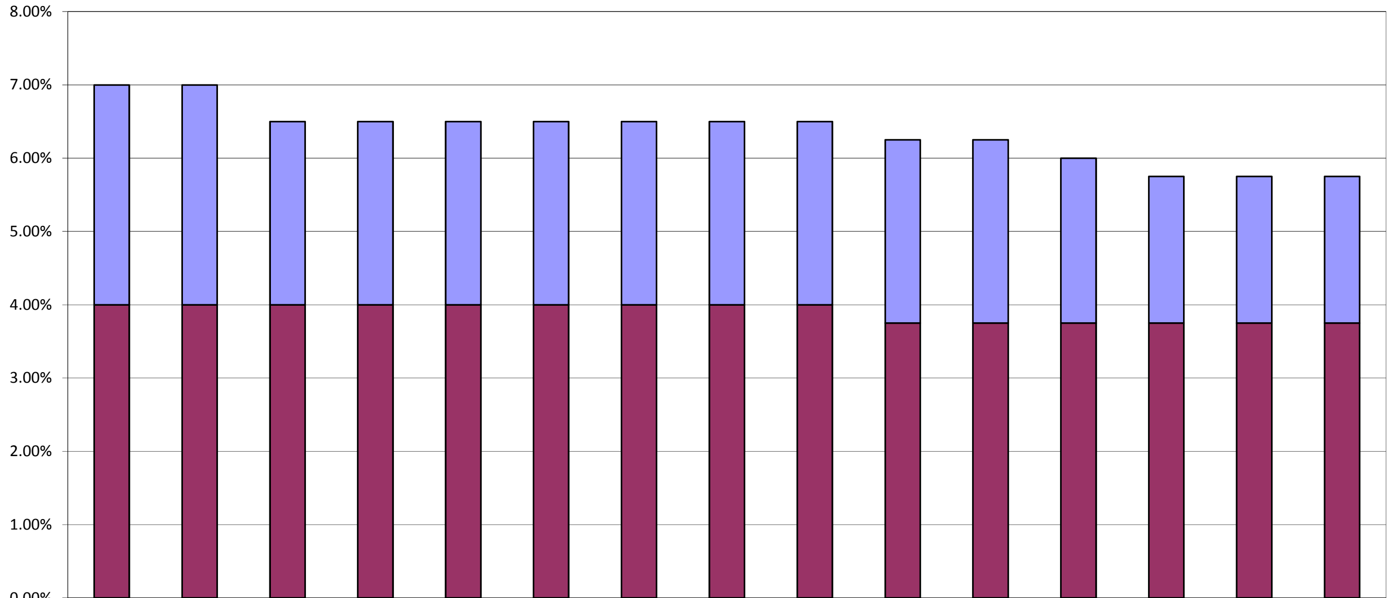
Each year, the actuarial valuation records the actual results and compares them to the assumptions. These variances, over time, provide a rationale for ongoing adjustments to the assumptions. Consistent variances in one direction, either negative or positive, suggest that an assumption needs to be changed. When actuarial assumptions do change, they tend to be adjusted in very small increments, rather than in the larger swings that can be experienced in the short and medium term.

Key interdependent assumptions are the assumed increase in CPI, and the assumed increases in salaries and the interest rate (discount rate), both of which reflect the CPI assumption. At July 1, 2016, they are 2.0% increase in CPI, 4.0% increase in salaries (2.0% CPI and 2.0% merit and promotion/progression), and 5.75% interest rate/discount rate (2.0% CPI and 3.75% real return).

Discount Rate on Liabilities

The following chart illustrates the history of this assumption from 2002 and shows that the discount assumption had remained quite steady over the past several years with the only variation coming from changes in CPI. For purposes of the actuarial report, a 4.0% real return discount assumption had been in place for many years. Effective July 1, 2011 the discount rate on liabilities was reduced from 6.50% to 6.25%, reflecting a reduction in the real return discount assumption from 4.00% to 3.75% (the CPI assumption remaining at 2.50%), with the discount rate assumption remaining at 6.25% in 2012. Effective July 1, 2013 the discount rate on liabilities was reduced to 6.00% from 6.25%, reflecting a reduction in the increase in the CPI from 2.50% to 2.25%, and effective July 1, 2014 the discount rate was reduced again, from 6.00% to 5.75%, reflecting a further reduction in the increase in the CPI from 2.25% to 2.00%. There were no changes to the discount rate in 2015 and 2016.

University of Toronto Registered Pension Plan
Interest Rate Assumed on Investments, including Increase in CPI, at July 1



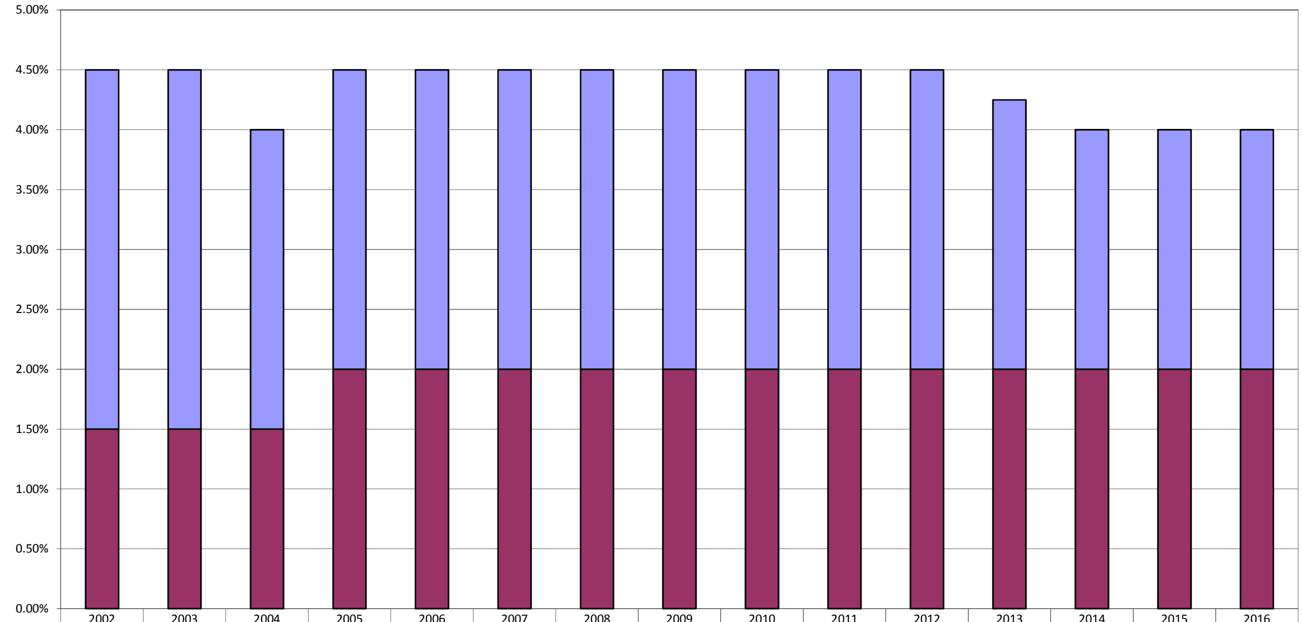
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Increase in CPI	3.00%	3.00%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.25%	2.00%	2.00%	2.00%
Interest rate in excess of CPI	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%

The significance of this assumption is that the liabilities represent the discounted net present value of future pension payments, and the discount rate is used to discount the pension payments to the present. The lower the discount rate, the higher the liabilities and the higher the funding needed for the defined benefit pension. Or another way of looking at this, the lower the expected investment earnings, the more funding that has to come from contributions.

Salary increase assumption

This assumption attempts to predict what salary increases will be over the long term, and thus what will be the 36 months of highest average earnings for each plan participant at retirement. The percentage increase in salary in excess of CPI was adjusted in 2005 to reflect ongoing salary settlements that, including merit and promotion/progression, were trending higher than 4.00%. Although the inflation assumption was reduced, the salary settlements themselves did not seem to decline. Therefore, the 4.50% total percentage assumption was re-established in 2005 and remained in effect through 2012. In 2013, the salary increase assumption was changed from 4.50% to 4.25% to reflect the change in the increase in the CPI from 2.50% to 2.25%, and changed again in 2014 from 4.25% to 4.00% to reflect the change in the increase in the CPI from 2.25% to 2.00%. There were no changes in this assumption in 2015 and 2016.

University of Toronto Registered Pension Plan
Salary Increase Assumed, including Increase in CPI, at July 1



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Increase in CPI	3.00%	3.00%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.25%	2.00%	2.00%	2.00%
Increase in salaries in excess of CPI	1.50%	1.50%	1.50%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%

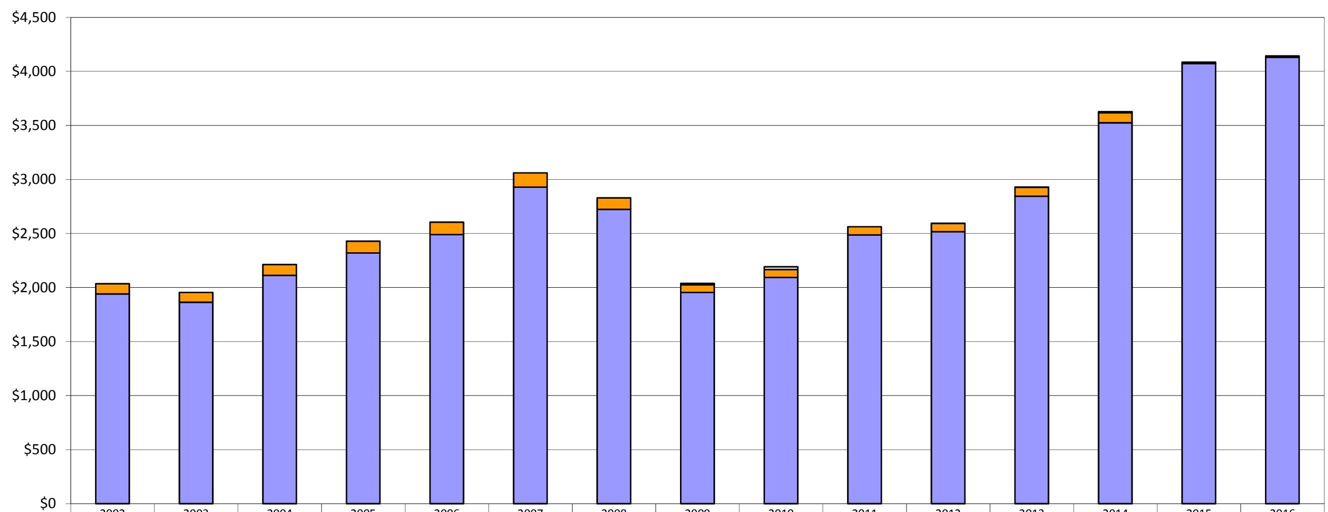
Pension Assets

Total net assets for the RPP and the pension reserve was $4,143.2 million at June 30, 2016, comprising:

$ 4,131.4 million	RPP net assets
$ 11.8 million	Pension reserve university assets

The change in these assets since 2002 is shown on the following chart:

Market Value of Pension Assets [1, 2, 3]
at June 30
(millions of dollars)



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Pension reserve assets								12.4	24.9		2.4	2.4	8.6	11.8	11.8
RPP(OISE) net assets	94.7	90.5	101.8	109.0	113.8	131.6	105.9	71.5	72.8	76.1	76.5	82.3	93.7		
RPP net assets	1,940.0	1,863.2	2,111.8	2,320.6	2,489.9	2,929.7	2,724.2	1,954.8	2,093.9	2,486.3	2,515.8	2,845.1	3,525.1	4,073.4	4,131.4

[1] Including partial wind-up members in RPP(OISE) assets in years up to 2007.

[2] Pension reserve assets of $25.0 million were transferred to the RPP in 2011.

[3] Beginning in 2015, RPP assets include the assets of the former RPP(OISE) plan.

The RPP, and RPP(OISE) prior to 2015, represent separate legal trusts containing pension assets, and a link to their financial statements is included in Appendix 1. The pension reserve assets are University funds that are not held in trust. This report considers contributions to the pension reserve but does not focus on investment earnings of this fund.

As discussed more fully in the Investment Earnings section in this report, pension plan assets are invested in the Pension Master Trust. Pension assets, which include the investment in the

Pension Master Trust as well as other pension plan net receivables, are shown below since 2012[8] :

Pension Plan Assets at June 30

(thousands of dollars)

	2016	2015	2014	2013	2012
Investment in Pension Master Trust					
Short-term investments	45,025	62,708	21,682	2,282	95,151
Government and corporate bonds	1,304,071	1,295,455	1,132,557	882,696	761,019
Canadian equities	533,660	606,578	573,618	463,504	515,848
United States equities	784,594	693,182	610,888	521,020	455,104
International equities	640,653	625,136	577,681	478,634	377,567
Emerging markets equities	402,211	409,253	359,511	302,136	116,483
Absolute return funds	409,986	403,512	306,298	284,043	257,730
	4,120,200	4,095,824	3,582,235	2,934,315	2,578,902
Derivative-related net (payable) receivable	(2,942)	(32,613)	24,905	(15,305)	3,078
Pension Plan Investment in Pension Master Trust, at fair value	**4,117,258**	**4,063,211**	**3,607,140**	**2,919,010**	**2,581,980**
Pension Plan - other net receivables	14,107	10,182	11,639	8,421	10,283
Net Assets Available for Benefits	**4,131,365**	**4,073,393**	**3,618,779**	**2,927,431**	**2,592,263**

As noted earlier, there are only two ways of funding a defined benefit pension plan – contributions and investment earnings. Contributions, plus investment earnings, minus the fees and expenses incurred in administering the pension plan and earning investment returns, and minus the payments to retired members result in the pension assets that are on hand and set aside to meet the pension liabilities.

It is important to note that there is a strong relationship between contributions and investment earnings. Since the amount that must be set aside in assets is driven by the pension liabilities, the key question on the asset side is:

How much of the pension funding should be targeted to come from CONTRIBUTIONS and how much should be targeted to come from INVESTMENT EARNINGS?

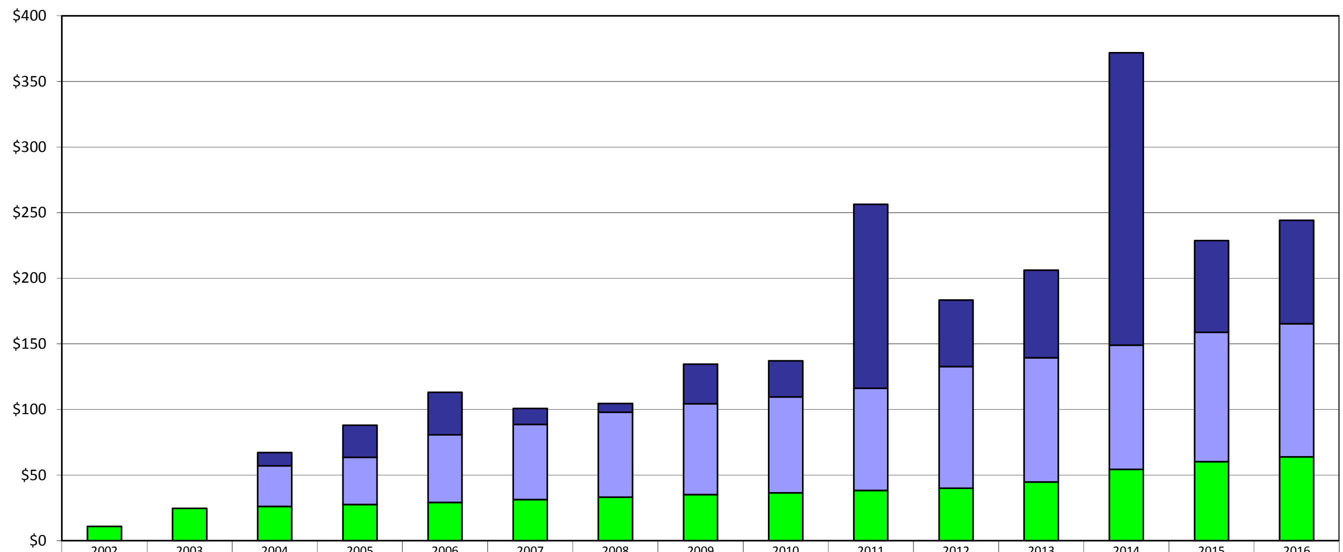
The higher the investment earnings that can be generated, the lower the contributions needed to be provided by members and by the University. However, there are significant risks inherent in investment markets and the higher the return that is targeted, the higher the risk of losing money is likely to be. The next two sections will examine the role of contributions and investment earnings and the following two sections will discuss fees and expenses and payments.

[8] *Net Assets Available for Benefits (referred to as Pension Assets or Market Value of Assets elsewhere in this report) includes the Investment in Pension Master Trust net of receivables and prepaid expenses less administrative liabilities of the pension plan, from the audited financial statements of the pension plan.*

Contributions

The University of Toronto Pension Plan is a defined benefit **contributory** plan. As noted earlier, there are only two ways of funding a defined benefit pension plan – contributions and investment earnings. This section focuses on the contributions that have been made by the University and by employees. The following chart shows the contributions made by the University and by employees since 2002.

Contributions by Source (Employee and Employer) [1, 2]
for the year ended June 30
(millions of dollars)



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
ER special payments			10.2	24.6	32.4	12.2	6.6	30.2	27.6	140.2	50.6	66.6	222.8	69.8	78.7
ER current service contribution			30.8	36.0	51.6	57.2	64.8	69.3	73.1	77.7	92.8	94.8	94.6	98.6	101.6
EE current service contribution	11.0	24.6	26.2	27.5	29.2	31.4	33.2	35.1	36.5	38.4	40.0	44.7	54.4	60.2	63.9

[1] Voluntary Early Academic Retirement Program (VEARP) contributions included in ER special payments.

[2] ER special payments in 2011 exclude the $25.0 million transfer of pension reserve assets to the RPP (for total ER special payments to the RPP of $165.2 million) since increases to pension reserve assets had already been included as contributions in previous years for the purposes of the Pension Report. In 2012, 2014 and 2015, ER special payments include contributions to the pension reserve of $2.4 million, $6.2 million and $3.2 million respectively.

Contributions are to be made by members and by the employer to fund pension benefits earned in the current year, also known as the current service cost. The member share of those contributions is determined by formula, with the employer contribution representing the difference between the total current service contribution required (actuarially determined) and the portion paid by members.

Contributions by employers are not permitted under the Income Tax Act (Canada) into registered plans when there is an actuarial surplus greater than 25% of accrued liabilities (changed from 10% in 2010).

Contributions by employers are required to fund any going concern deficits over 15 years. These special payment contributions are in addition to regular current service contributions.

Contributions by employers are required to fund any solvency deficits over 5 years. These special payment contributions are in addition to regular current service contributions. (The Province of Ontario has established a temporary solvency funding relief program has made provisions to vary this requirement – described later in this section).

In 2002 (and for some years prior), the RPP had a sufficiently high actuarial surplus that no employer contributions were permitted except for two years where a partial contribution was permitted, and four years where a full contribution was permitted. Members experienced a pension contribution holiday from 1997 to 2002.[9]

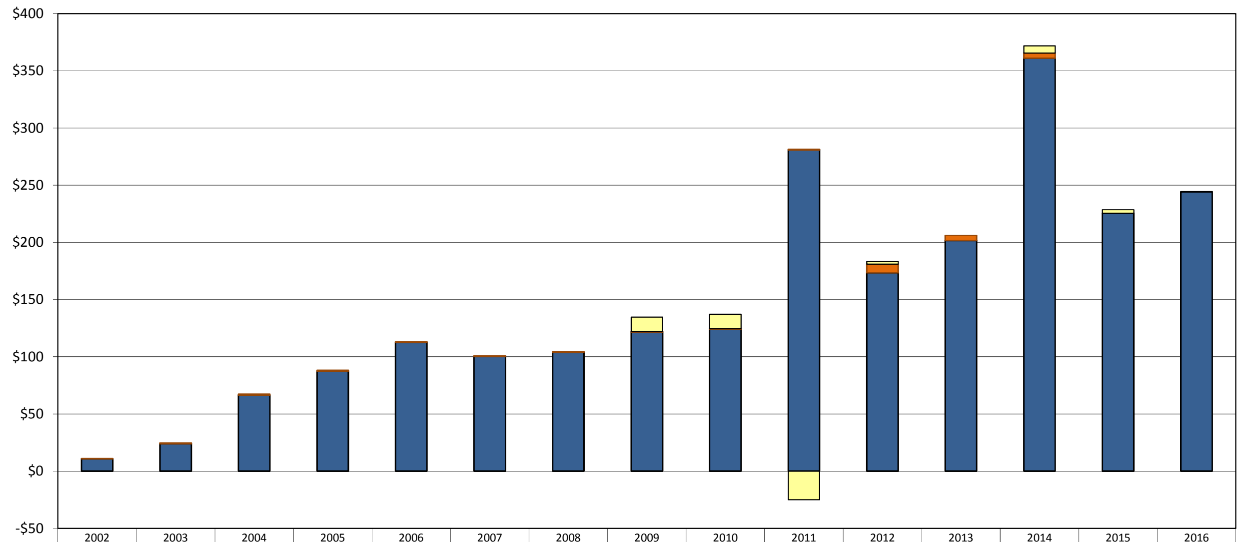
After 2002, due in large part to poor investment markets, the surplus declined significantly. The University adopted a new pension contribution strategy, approved by the Business Board in January 2004, with the objective of providing smoothed funding to deal with these deficits over a multi-year period, while permitting stable, predictable funding via the University's operating budget and while taking the Income Tax Act funding constraint into account. The key elements of the 2004 pension contribution strategy were as follows:

- Members and the University contribute 100% annual current service contributions (no contribution holidays).
- The SRA would be "funded" on the same basis as the registered pension plan, that is over 15 years.
- The University would allocate special payments of no less than $26.4 million (increased to $27.2 million to reflect subsequent benefits enhancements) to deal with the RPP and SRA deficits by way of a smoothed budget allocation over 15 years. This smoothed approach provided for higher payments than required in the earlier years, with the intent of protecting against solvency issues and providing for budget predictability within the University's operating fund.
- If some, or all, of the special payment amount is not needed or permitted to be made into the RPP under the Income Tax Act, it must be set aside and reserved outside the RPP.

The following chart shows the allocation of contributions by plan since 2002.

[9] *The University redirected $88.1 million of its contribution holiday to fund the SRA over the 5 year period following its establishment effective July 1, 1996, which included current service contributions and special payments to fund past service. These assets were ultimately deposited into the RPP in 2014.*

Allocation of Contributions (both Employer and Employee) by Plan [1, 2]
for the year ended June 30
(millions of dollars)



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Pension reserve								12.4	12.4	(25.0)	2.4		6.2	3.2	
RPP (OISE/UT)	0.3	0.6	0.7	0.6	0.6	0.6	0.6	0.5	0.5	0.5	7.6	4.6	4.5		
RPP	10.7	24.0	66.5	87.5	112.6	100.2	104.0	121.7	124.3	280.8	173.4	201.5	361.1	225.4	244.2

[1] Pension reserve assets were transferred to the RPP in 2011. Since additions to the pension reserve in 2009 and 2010 were shown as contributions in those years, the transfer of pension reserve assets to the RPP in 2011 is shown as a negative contribution to the pension reserve in that year, and a positive contribution to the RPP.

[2] Beginning in 2015, RPP contributions include contributions from the former RPP(OISE) members.

This contribution strategy delivered additional funding to the pension plan to deal with the deficit that had emerged in 2003 and, through the requirement to maintain the $27.2 million per year special payments budget even after the deficit was extinguished, made provision for a base funding level in the event of future deficits.

Beginning in 2008, and much more pronounced in 2009, the impact of the global financial crisis was to reduce market returns significantly, necessitating an overhaul of the pension contribution strategy to address the resulting large deficit. Rapidly falling interest rates also impacted solvency calculations, necessitating government action around solvency funding regulations.

In 2010, the Province of Ontario put in place a two stage process that was intended to provide institutions in the broader public sector (which includes universities) with an opportunity to make net solvency payments over a longer period than would otherwise be required. The University has been accepted to both stage 1 and stage 2 of this process. It should be noted that to qualify for stage 2 of this process, the Government expected institutions to negotiate with plan members, and their representatives, ways to enhance the long term sustainability of defined benefit pension plans. The University has put into place member contribution increases to meet the conditions required for acceptance to stage 2 of the process. The Government also requires that during the relief period, and for a significant period of time following the relief period, contribution holidays would be restricted and any benefit improvements would require accelerated funding.

The pension contribution strategy was significantly revised to address the deficit and to reflect the Government's temporary solvency funding relief program. This revised pension contribution strategy, including a plan for funding the pension deficit, was approved by the Business Board on May 3, 2012 based on actuarial results to July 1, 2011 and assumptions about future years to 2030. The key elements of the current pension contribution strategy are as follows:

- Members and the University make 100% of required current service contributions into the registered pension plan each year.
- University pension plan current service contributions are to be no less than 10.77% of the capped participant salary base.
- In the event that legislation or regulation prohibits some or all of the University current service contributions from being deposited into the registered pension plan, those contributions will be reserved for pensions outside the registered pension plan.
- Supplemental Retirement Arrangement (SRA):
    - No further current service or special payment contributions will be made into the SRA.
    - The balance of the SRA assets will be deposited into the registered pension plan(s) by June 30, 2014 (see point below regarding second lump sum payment).
    - SRA payments to current and future pensioners will be made by the University.
- A second lump sum payment in the amount of $150 million will be made into the registered pension plan before July 1, 2014, utilizing SRA assets (see above) and approved internal borrowing as required.
- Up to $150 million of internal borrowing for pensions (Note: the Business Board approved internal borrowing for pensions of up to $150 million on January 31, 2011. Inclusion of this item again here is for completeness).
- Letters of Credit will be utilized to address the net solvency special payments to the fullest extent permitted by legislation and regulation.
- Increase Operating Fund Special Payments Budget:
    - To an amount deemed sufficient to meet the plan's special payment funding requirements, currently estimated to be $97.2 million per year.[10]

[10] *Subsequently increased in stages to $122.2 million per year by 2020-21 via the Budget Report, last approved by Governing Council on April 7, 2016.*

- To fund special payments into the registered pension plan and other costs related to this pension contribution strategy such as borrowing repayment costs, SRA pension payments for pensioners, letter of credit fees, and Pension Benefit Guarantee Fund (PBGF) fees.
- Maintain that higher budget, currently estimated at $97.2 million, until the pension deficit is extinguished.
- Maintain the annual special payments budget at $27.2 million per year, even after the deficit and other costs related to this strategy have been extinguished.
- Maintain the pension reserve structure.

The full text of the Pension Contribution Strategy can be found on the Governing Council website at: http://www.governingcouncil.utoronto.ca/AssetFactory.aspx?did=8516.

Under solvency funding relief regulations, the solvency deficit as of July 1, 2014 would have to be amortized over 10 years based on qualifying for stage 2 of the process. Under the amended solvency funding relief regulations that were announced in the Ontario 2013 Budget, the University elected the one-year deferral period and an additional 3-year period during which the minimum special payment is the interest on the solvency deficit. After the 3-year period, any solvency deficit at that time would be amortized over 7 years (the remaining period in the original 10-year period). As a result, based on results at July 1, 2014, which was a "filing year" in which the actuarial reports were filed with FSCO, for the 7-year period beginning July 1, 2018 and ending June 30, 2025, the annual solvency special payments with stage 2 solvency funding relief would have been approximately $63.0 million (using the estimated solvency deficit as of July 1, 2016 as a proxy). This is in addition to the annual going concern special payments of $78.7 million for the 15-year period beginning July 1, 2015.

The Ontario government has recently amended Ontario Regulation 178/11 under the Pension Benefits Act to provide additional "stage 3" solvency funding relief measures for certain public sector plans. Regulation 350/16 requires the University to make minimum special payments sufficient to liquidate 25% of the solvency deficiency over seven years and to cover interest applied on the remaining 75% of the solvency deficit not being amortized. Based on the current level of going concern special payments and the solvency funded status as of July 1, 2016, the amended solvency funding requirement is estimated to be approximately $15 million per year over seven years beginning July 1, 2018. The required minimum solvency payments will be identified in the next required filing of the actuarial valuation as at July 1, 2017.

The following certification summarizes the contributions to the plans for the period from July 1, 2015 to June 30, 2016:

UNIVERSITY OF
TORONTO

FINANCIAL SERVICES

December 14, 2016

Governing Council of the University of Toronto
27 King's College Circle
Toronto, ON M5S 1A1

Contributions to: **University of Toronto Pension Plan**

This letter confirms that the University of Toronto has made all required pension contributions to the University's registered pension plan for the pension fiscal year ending June 30, 2016. The contributions to the plans totaled $244,211,783. The following table summarizes the contributions by type:

	Total
Employee – current service	$ 63,893,783
Employer – current service	101,658,000
Employer – special required	78,660,000
Total	**$ 244,211,783**

The above contributions to the plan exclude portability and reciprocal transfers from other plans of $2,269,143.

(signed)

Sheila Brown
Chief Financial Officer

215 Huron Street, 2nd Flr, Toronto, ON M5S 1A2 Canada
Tel: +1 416 978-2157 • Fax: +1 416 978-5572 • www.finance.utoronto.ca

Investment Earnings

As noted earlier, pension assets arise from only two sources of funding – contributions (including transfers from other plans) and investment earnings. These sources of funding must pay for the payments to retired members and lump sum transfers, and for the fees and expenses incurred in administering and investing the pension plan. Investment earnings are dependent on several elements:

- How much risk are we willing to take to try to achieve an acceptable level of investment earnings, understanding that the higher the investment earnings we want, generally speaking, the higher the risk of loss we are going to have to tolerate and to plan for?
- What investments do we make – the investment strategy, including asset mix – to try to achieve investment earnings?
- How are investment markets performing, in Canada and around the world?

The registered pension plan is invested through the unitized pension master trust (PMT) which, until the assets of the RPP(OISE) plan were transferred to the RPP on June 30, 2016, combined for investment purposes the assets of the RPP and the RPP(OISE). The PMT was created on August 1, 2000 to provide the assets of the two registered pension plans with the same economies of scale, diversification and investment performance. The pension assets in the PMT are invested by the University of Toronto Asset Management Corporation (UTAM) on behalf of the pension plan. UTAM, which was formed in April 2000, is a separate non-share capital corporation whose members are appointed by the University. The UTAM Board is responsible for the oversight and direction of UTAM as a corporation. The current framework for investment policy, strategy and monitoring for the PMT is as follows:

- The investment return targets and risk limits are developed by the University administration, reviewed by the IC[11], embedded in the Pension Fund Statement of Investment Policies and Procedures (SIP&P) and approved by the University of Toronto Pension Committee.
- The Reference Portfolio, which is both the policy asset mix and the benchmark portfolio[12] with respect to passive investing, is based on the investment return targets and risk limits. It is developed by the IC and UTAM, working together, embedded in the SIP&P, and approved by the Pension Committee. The Reference Portfolio and the

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[11] *In May 2016, the Investment Committee (IC) was established as the successor to the Investment Advisory Committee. The IC reports to the President of the University and provides expert advice to the University Administration, collaborating extensively with the University Administration and with UTAM management staff on investment objectives and investment activities.*

[12] *The reference portfolio is used as a measure of the returns that are achievable in financial markets given the University's risk appetite.*

associated risk limits, once approved, also constrain the flexibility that UTAM can exercise in actively managing the actual portfolio.

- Investment performance is monitored by UTAM, the IC, the University administration and the Pension Committee through regular reporting by UTAM to these various groups. That reporting includes current period and multi-year comparisons of actual performance relative to the PMT target returns and risk limits and to the Reference Portfolio's returns and risk.

The SIP&P includes the return objectives, risk tolerance, asset allocation, benchmarks for the evaluation of performance, and other elements required by regulation. The Pension Committee reviews and confirms the SIP&P annually in accordance with pension regulation, most recently on June 24, 2016.

The Reference Portfolio

As described in the SIP&P, in order to meet the planned payment of pensions to current and future pensioners at the existing contribution levels, the return objective is a real investment return of at least 4.0% over rolling 10-year periods, while taking an appropriate amount of risk to achieve this target, but without undue risk of loss.

The Reference Portfolio is based on these investment return and risk tolerance objectives. It is both the policy asset allocation[13] and the passive benchmark portfolio against which active management decisions are evaluated. The Reference Portfolio was established in 2011 and is reviewed periodically.

The following chart shows the Reference Portfolio, the minimum and maximum weights of the actual portfolio, and the associated benchmarks.

[13] *Asset allocation is defined as the division of a portfolio's assets among a variety of asset classes in accordance with long-term policy goals over a market cycle. To define the risk tolerance and to set an appropriate asset allocation, a* ***Reference Portfolio*** *has been established. It is a "shadow" portfolio which is believed to be appropriate to the PMT's long-term horizon and risk profile. The principle underlying its composition requires exposures which are: low-cost, simple, passive, and appropriate to the objectives of the University. Given the current environment, it continues to be believed that a Reference Portfolio that is limited to 60% equity exposure (and the associated level of risk) may have difficulty achieving the 4.0% real return objective. In order to achieve the 4.0% real return objective, successful active management is required. This includes altering asset class weights, adding assets and strategies not included in the Reference Portfolio and hiring top tier managers, etc. while ensuring that such changes do not result in the assumption of undue risk.*

REFERENCE PORTFOLIO AND ALLOWABLE RANGE OF ACTUAL PORTFOLIO WEIGHTS					
		Reference Portfolio %	Benchmark Index	Allowable Range of Actual Portfolio Weights Min. %	Max. %
Equity:					
	Canadian	10	S&P TSX Composite Total Return Index	5	15
	US	20	S&P 500 Total Return Index	15	25
	EAFE	15	MSCI EAFE Total Return Index (Net)	10	20
	EM	10	MSCI Emerging Markets Total Return Index (Net)	5	15
	Global	5	MSCI All Country World Index (Net)	0	10
	Total	60		**50**	**70**
Credit:		20	FTSE TMX Canada All Corporate Bond Total Return Index	10	30
Rates:		20	FTSE TMX Canada All Government Bond Total Return Index	10	30
Other:		0		0	15
		100			
Unhedged FX Exposure:		32.5		25	40

The Risk Limit

Risk is defined as the volatility of Pension asset returns. It is managed within a "traffic light" risk framework as outlined below[14]. The Normal range of Active Risk is from -50 bps (i.e. -0.5%) to 100 bps, but it is allowed to go as high as 125 bps for up to 6 months. Immediate action is required to reduce Active Risk if it exceeds 125 bps. In addition, if Active Risk is below -50 bps, a discussion is required to occur between UTAM and the University.

Active Risk Zone	Active Risk (in basis points)	Maximum Allowed Time in Zone	Required Response and Communication Protocol
Target Zone ("Normal")	**-50 ≤ Active Risk ≤ 100**		Normal operating range for Active Risk.

[14] *This risk framework was approved by the Pension Committee on June 24, 2016 as part of its approval of the SIP&P. Prior to this, the active risk limit was set at 0.75% (75 bps).*

Active Risk Zone	Active Risk (in basis points)	Maximum Allowed Time in Zone	Required Response and Communication Protocol
Notification and Analysis Zone ("Watch")	**100 < Active Risk ≤ 125**	6 months	As soon as practical*, UTAM President will notify IC Chair(s). At the next regularly scheduled IC meeting, UTAM President will report the reasons for the elevated risk and indicate potential steps for reduction should risk rise to the Mitigation Zone. If risk returns to the Target Zone, the IC will be informed at its next regularly scheduled meeting. If risk remains in the Watch zone for 6 consecutive months it will cause an escalation to the Mitigation Zone.
Mitigation Zone ("Alert")	**Active Risk > 125**	1 month	As soon as practical*, UTAM President will notify the IC Chair(s). UTAM will immediately initiate steps to return risk to the Target Zone. At the next regularly scheduled IC meeting, UTAM President will report the reasons for the elevated risk and describe the actions taken to reduce risk and any further planned action.

* Reporting of breaches will occur as soon as the risk measure has been validated based on existing operational processes.

Actual investment performance is evaluated against the return and risk objectives over time and also compared to the performance of the Reference Portfolio to provide a measure of the degree of success of the active management program.

The current methodology is based on a belief that we should primarily be concerned with achieving the investment return targets and adhering to the risk limits as stated in the SIP&P. Achieving the return target is paramount because, as noted above, funding for the pension plan comes only from two sources – contributions (from plan members and the University) and investment earnings. While there is a margin of error for adverse events (3.75% real investment return discount rate actuarial assumption as compared to the real investment return target of 4.0% over 10 years in the SIP&P, both net of investment fees and expenses), it is still very important that actual investment returns meet the investment return target over the long-term, to sustain the pension plan over the long-run.

The challenge is to find a way to evaluate performance towards these longer-term investment return targets over a multi-year period while taking into account the influence of underlying financial markets conditions on short-term results, and to put those short-term results in perspective.

The University evaluates investment performance for the PMT against the investment return targets, the Reference Portfolio returns and the active risk framework, as specified in the SIP&P. The primary objective must be the achievement of the PMT investment return targets while controlling risk to within the specified risk framework.

Active risk at June 30, 2016 was 33 bps and total risk was 6.11%, compared to Reference Portfolio risk of 5.78%, well within the Active Risk Green Zone (-50 bps to +100 bps).

The actual PMT performance compared with the investment return targets and the Reference / Benchmark Portfolio returns is shown in the table below:

PMT Performance - Comparing Actual Performance with Target and Benchmark Returns

	1 year return to Jun 30/16	2 year return to Jun 30/16	4 year return to Jun 30/16	5 year return to Jun 30/16
PMT actual investment return	0.69%	6.14%	10.35%	8.40%
PMT target investment return (4.0% + CPI)	5.42% *	5.19%	5.49%	5.46%
Reference / Benchmark portfolio return	0.55%	4.04%	8.31%	6.63%
Difference between PMT actual and target	-4.73%	0.95%	4.86%	2.94%
of which:				
the % attributable to the Reference/Benchmark portfolio:	-4.87%	-1.15%	2.82%	1.17%
the % attributable to active management decisions:	0.14%	2.10%	2.04%	1.77%

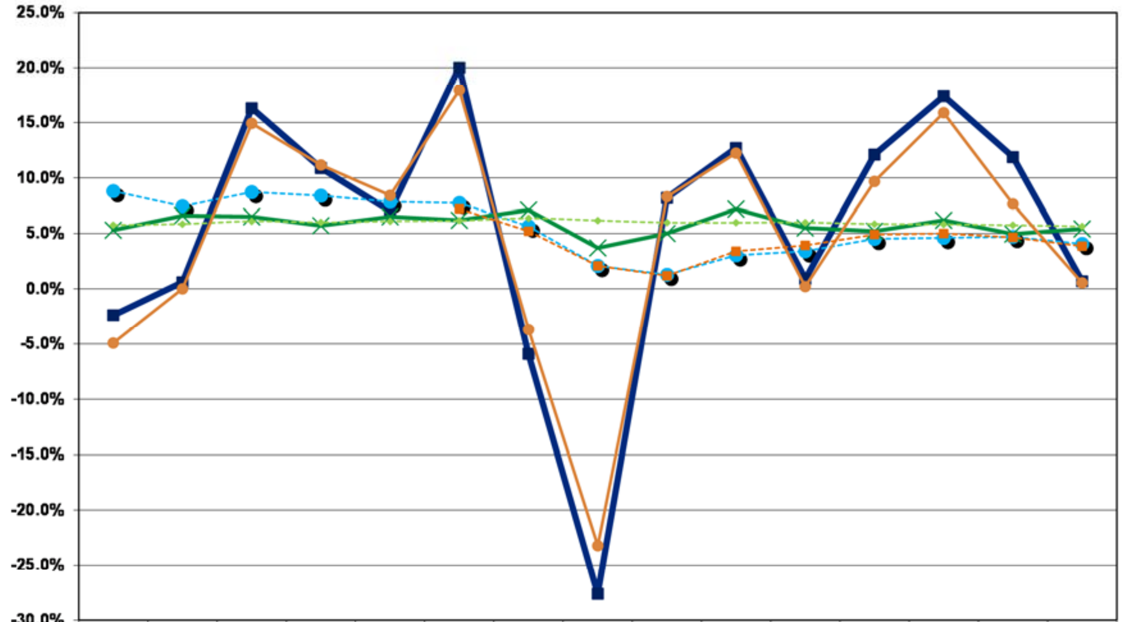
Note: all investment return percentages are net of all investment fees and expenses

As the above table indicates, for the one-year period from July 1, 2015 to June 30, 2016, the target investment return for the PMT was 5.42%, representing a 4.0% real return plus inflation of 1.42%, net of investment fees and expenses. The actual return for the year was 0.69%, which was lower than the target return by 4.73%. The reason for the underperformance was the 0.55% return of the Reference Portfolio (which is the benchmark return to indicate how markets performed). Active management decisions by UTAM added 0.14% (0.69% - 0.55%) but this was not enough to overcome the significant underperformance of the Reference Portfolio versus target. It is important to emphasize that all of the return percentages are net of investment fees and expenses.

The same analytical framework applies to the other periods shown in the table above. For the five-year period from July 1, 2011 to June 30, 2016, the actual annual return for the PMT was 8.40%. The actual return exceeded the target annual return of 5.46% by 2.94% (8.40% -

5.46%), of which 1.77% (8.40% - 6.63%) was due to value added from UTAM active management decisions.

Pension Master Trust (PMT)
Actual, Target and Reference/Benchmark Returns



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Actual investment return *	-2.4%	0.6%	16.3%	10.9%	7.0%	20.0%	-5.9%	-27.6%	8.2%	12.7%	0.9%	12.1%	17.4%	11.9%	0.7%
Ten-Year rolling return	8.8%	7.5%	8.7%	8.4%	7.9%	7.7%	5.6%	2.1%	1.3%	3.1%	3.4%	4.5%	4.6%	4.7%	4.1%
Target return **	5.3%	6.6%	6.5%	5.7%	6.5%	6.2%	7.1%	3.7%	5.0%	7.2%	5.5%	5.2%	6.2%	5.0%	5.4%
Ten-Year rolling target return	5.8%	5.9%	6.1%	6.0%	6.1%	6.2%	6.4%	6.2%	6.0%	6.0%	6.0%	5.9%	5.8%	5.7%	5.6%
Reference/Benchmark return	-4.9%	0.0%	14.9%	11.2%	8.4%	17.9%	-3.7%	-23.2%	8.3%	12.2%	0.2%	9.7%	15.9%	7.7%	0.6%
Ten-Year rolling R/B return						7.2%	5.2%	2.1%	1.2%	3.4%	3.9%	4.9%	5.0%	4.7%	3.9%

* Returns are time-weighted, calculated in accordance with industry standards, are net of investment fees and expenses, and exclude returns on private investments prior to 2008.

** Target return is 4.0% plus CPI.

If we look at the ten-year rolling returns ending June 30th of each year, we find that for the period from 2002 to 2007, the actual ten-year rolling returns were above the PMT ten-year target return for the entire period. However, the market environment has been considerably less favourable over the more recent past. In 2008, the PMT suffered a negative return of 5.7% and in 2009 a negative return of 27.6% due to the global financial crisis (the Benchmark portfolio returns were -3.7% and -23.2% respectively). Since then, all major financial markets have rebounded from the meltdown experienced in 2008 and 2009, but not enough to fully achieve the PMT's target return over rolling 10-year periods that include 2008 and 2009.

In 2007, pre-financial crisis, the actual ten-year rolling return of 7.7% exceeded the ten-year rolling target return of 6.2% by 1.5%, and the ten-year rolling Benchmark portfolio return of 7.2% by 0.5%. By 2010, following the financial crisis, the ten-year rolling actual return of 1.3% was less than the ten-year rolling target return of 6.0% by 4.7% even though it was in line with the ten-year rolling Benchmark portfolio return of 1.2%. By 2016, the ten-year rolling actual return had rebounded to 4.1%, still less than the ten-year rolling target investment return of 5.6% (by 1.5%), but in line with the ten-year rolling Benchmark portfolio return of 3.9%. It should be noted that if we were to look at a longer period (20 years), the 20-year actual return for the period ending June 30, 2016 was 6.0%, slightly higher than the 20-year target return of 5.9% for the same period. Please see the section **Status of the Pension Plan – In Perspective** for how investment performance impacts the financial health and status of the pension plan.

Environmental, Social and Governance Factors

The SIP&P, which was approved by the Pension Committee June 24, 2016, has been amended to include the following wording with respect to ESG, in the section entitled "Responsible Investing:[15]

The Pension Committee believes that responsible investment includes investing in firms whose sound ESG practices are aligned with the long-term financial best interests of the beneficiaries of the Plan. The Pension Committee believes that the adoption by organizations of sound ESG practices that benefit society and the planet may reduce financial risk over time and offer better long-term value for investors. Similarly, the Pension Committee believes that ESG factors may have a material impact on the long-term financial performance of particular investments. Therefore, in the context of the overall mandate of the Pension Committee to achieve the targeted long-term investment return without undue risk of loss, and recognizing that the significance of ESG factors varies from industry to industry and from place to place, ESG factors, with reference to evolving data and metrics will be integrated into investment analysis and management of the plan's assets, where relevant and material. Recognizing that this process will take time, the Pension Committee requires that UTAM report annually to the Pension Committee on progress towards meeting this objective.

Environmental, social and governance factors are defined as follows:

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[15] *The report by the President of the University of Toronto, entitled Beyond Divestment: Taking Decisive Action on Climate Change, which represented the administrative response to the Report of the President's Advisory Committee on Divestment from Fossil Fuels, provides the rationale, including a discussion of fiduciary duty, and recommends that ESG factors be integrated in investment decision making for pension funds.*

Effective January 1, 2016, under the Pension Benefits Act, a plan's SIP&P is required to include information as to whether ESG factors are incorporated into the plan's SIP&P and, if so, how those factors are incorporated. Under investment guidance note IGN-004 Environmental, Social and Governance (ESG) Factors, issued by FSCO in October 2015, it is expected that plan administrators will decide whether or not to incorporate ESG factors into their investment policies and procedures and document their position in the plan's SIP&P. The ESG language that has been included in the SIP&P was developed after review of ESG language for many university and large broader public sector pension plans.

- environmental factors are those that relate to a company or industry's interaction with the physical environment (e.g. climate impact, energy efficiency);
- social factors are those elements of a company's or an industry's practices that have a social impact on a community or society (e.g. the impact of a company's or an industry's practices on human rights or indigenous rights); and
- governance factors are those that have an impact on how a company is governed (e.g. how it responds to conflict of interest).

A detailed review of the investment performance, which is managed and measured on a calendar year basis by UTAM, is available on UTAM's website at www.utam.utoronto.ca. Please see the next section for a discussion of fees and expenses.

Fees and Expenses

It costs money to manage, administer and invest pension plan assets. There are several categories of fees, including those for pension administration services (e.g. recordkeeping, calculation of benefits, payments to retired members), custody of pension assets, and investment of pension assets. The fees and expenses incurred by/for the Pension Master Trust for the year ended June 30, 2016 were as follows, in millions of dollars:

	2016 Total	2015 Total
Investment management fees - external managers [1]	**33.1**	30.6
Investment management fees - UTAM [2]	**5.0**	3.7
Transaction fees [3]	**0.9**	0.2
Pension administration services	**0.9**	0.8
Administration cost - University of Toronto	**0.6**	0.7
Actuarial and related fees	**0.4**	0.6
Trustee and custodial fees	**0.3**	0.3
Other fees	**0.4**	0.2
Total	**41.6**	37.1

[1] Increase primarily due to increase in hedge fund and private markets investments.

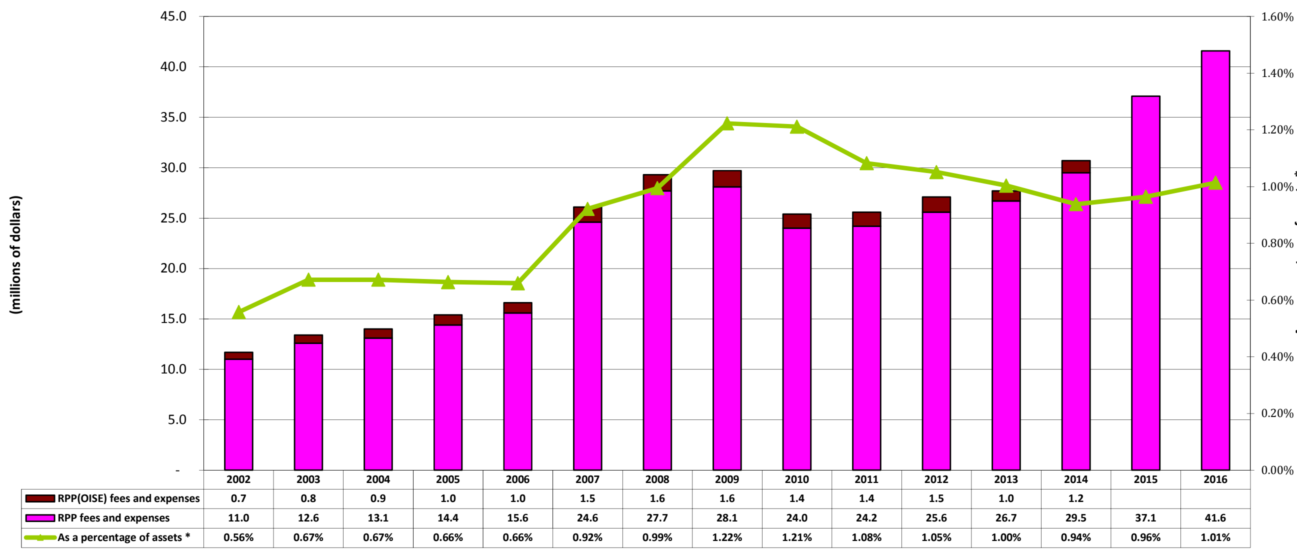
[2] Increase primarily due to higher incentive compensation as a result of significant outperformance versus the Reference Portfolio over a multi-year horizon.

[3] Increase primarily due to a new segregated account mandate and redemption fees for two pooled fund mandates.

External investment management fees, which represent 80% of total fees and expenses in 2016 (82% in 2015), are normally related to the size of assets under management. Total external investment management fees increased from $30.6 million in 2015 to $33.1 million in 2016.

The following chart provides a historical perspective on the fees and expenses:

University of Toronto Registered Pension Plans
Fees and Expenses as a Percentage of Assets *
for the Year Ended June 30



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
RPP(OISE) fees and expenses	0.7	0.8	0.9	1.0	1.0	1.5	1.6	1.6	1.4	1.4	1.5	1.0	1.2		
RPP fees and expenses	11.0	12.6	13.1	14.4	15.6	24.6	27.7	28.1	24.0	24.2	25.6	26.7	29.5	37.1	41.6
As a percentage of assets *	0.56%	0.67%	0.67%	0.66%	0.66%	0.92%	0.99%	1.22%	1.21%	1.08%	1.05%	1.00%	0.94%	0.96%	1.01%

* based on the average of opening and closing market value of assets.
Beginning in 2015, all fees and expenses are included in the RPP

During 2016, RPP net assets increased from $4,073.4 million to $4,131.4 million (see Pension Assets on page 23). Total fees and expenses increased from $37.1 million in 2015 to $41.6 million in 2016. As indicated in the above chart, total fees and expenses for the plan in 2016 were 1.01% of the average market value of net assets of the pension plan, an increase from 0.96% in 2015.

The management expense ratio (MER) is a standard investment industry ratio which compares the costs of investment management, both direct and indirect, to the total assets under management. The MER includes expenses incurred by UTAM and all investment management fees except for investment manager performance fees. It excludes other pension administration costs such as external audit fees, records administration, actuarial fees and University of Toronto administrative fees. It also uses the average annual market values for the year. The MER for the pension master trust was 0.93% in 2016, an increase from 0.89% in 2015.

A question of obvious interest is why total fees and expenses for the RPP and RPP(OISE) increased in percentage terms during the period from 2002 to 2003, and during the period

2007 to 2009. This was due to several factors. Investment management for the pension plan changed between 2002 and 2003 from a balanced fund type strategy, to an active professional investment strategy managed by UTAM starting in 2000. In addition, the investment strategy also placed increasing emphasis on alternative assets such as hedge funds and private investments, which generally have higher investment management fees than traditional investments such as public fixed income or public equities. It is anticipated that despite their higher management fees, alternative assets will diversify portfolio risk and generate higher investment returns in the long-run compared to comparable public market investments.

It is important to note that fees and expenses should not be viewed in isolation. Instead, they should be considered alongside the value created as a result of paying these fees. For example, the Pension Master Trust performance (net of all investment fees) exceeded that of the benchmark portfolio by 1.8% per year over the five-year period ending June 30, 2016. The corresponding number for the five year period ending Dec. 31, 2015 was 2.2%, which equates to over ***$350 million*** in value added.

For more information on fees and expenses refer to note 6 of the University of Toronto Pension Plan financial statements at http://finance.utoronto.ca/reports/pension/.

Pension Payments

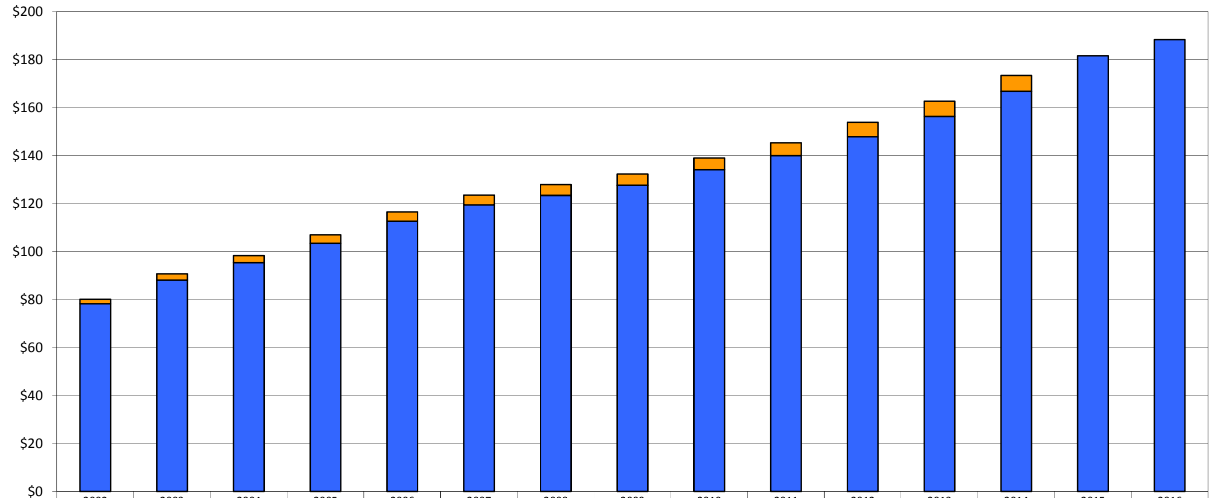
The section on participants showed that the number of retired members in the registered pension plan has increased from 3,813 in 2002[16] to 5,656 in 2016, an increase of 48.3%. Payments to retired members reflect this increase in numbers as well as the cost of living adjustments and augmentations that have occurred in certain years for certain member groups.

The dollar value of payments from the pension plan has increased from $80.1 million in 2002 to $188.3 million in 2016.

The rate of increase in payments is higher than the rate of increase in the number of members mainly due to pension indexation, augmentation of existing pension payments and higher starting pensions for more recently retired members reflecting higher average earnings.

[16] *Excluding retirees in the RPP(OISE) plan.*

University of Toronto Registered Pension Plans
Retirement Payments* for the year ended June 30
(millions of dollars)



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
RPP(OISE) retirement payments	1.9	2.6	2.9	3.6	3.9	4.1	4.5	4.7	4.9	5.3	6.0	6.3	6.5		
RPP retirement payments	78.2	88.1	95.4	103.4	112.6	119.4	123.4	127.6	134.1	140.0	147.8	156.3	166.8	181.5	188.3

* excluding refunds and transfers to other plans upon termination

Pension Market Deficit

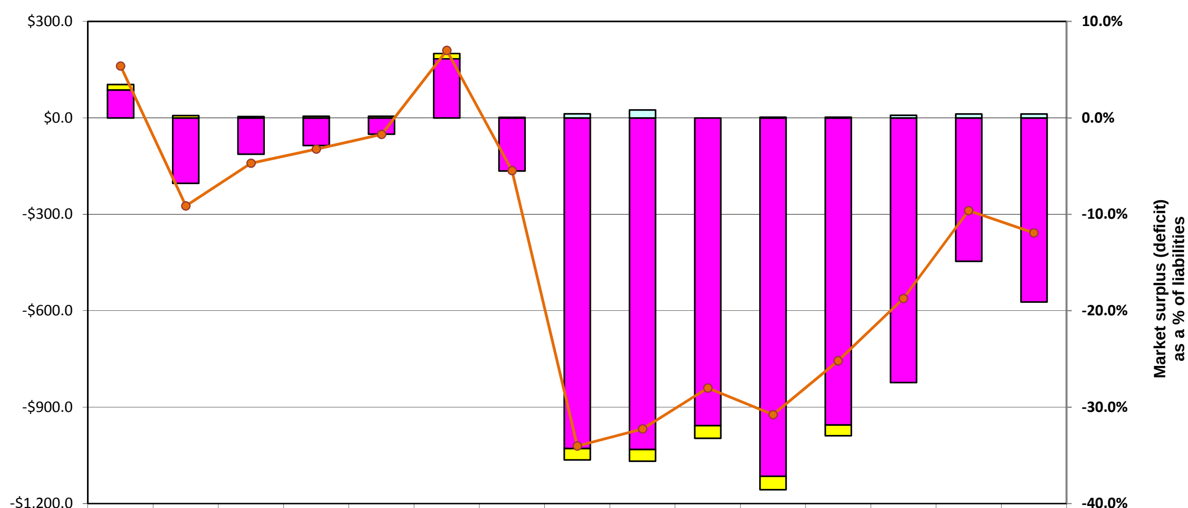
Going concern pension liabilities minus pension assets at market value result in the net funded status of the pension plan - the market surplus or market deficit. The going concern market deficit of the pension plan, net of the pension reserve, at July 1, 2016 was $561.3 million, comprising:

$	(573.1) million	RPP market deficit
$	11.8 million	Pension reserve university assets

As noted earlier, funds can be transferred from the pension reserve into the RPP.

The change in the going concern market surplus or deficit since 2002 is shown on the following chart:

Going Concern Market Surplus (Deficit)
as at July 1
(millions of dollars)



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Pension reserve								12.4	24.9		2.4	2.4	8.6	11.8	11.8
RPP(OISE)	16.8	7.1	4.2	5.3	5.2	16.3	1.7	(35.1)	(36.2)	(40.0)	(41.3)	(33.7)			
RPP	87.1	(203.5)	(113.2)	(86.4)	(50.7)	183.9	(165.4)	(1,029.0)	(1,032.1)	(957.2)	(1,115.2)	(955.5)	(823.2)	(446.0)	(573.1)
Market surplus (deficit) as a % of liabilities	5.4%	-9.1%	-4.7%	-3.2%	-1.7%	7.0%	-5.5%	-34.0%	-32.3%	-28.0%	-30.8%	-25.2%	-18.7%	-9.6%	-11.9%

Beginning in 2015, the going concern surplus (deficit) includes the surplus (deficit) of the former RPP(OISE) plan.

Since 2002, the financial position of the registered pension plans has varied from a combined surplus high of $103.9 million in 2002 to a combined deficit high of $1,156.5 million in 2012. The current market deficit of the RPP is $573.1 million is due in large part to the unprecedented level of investment losses resulting from the global financial crisis, which increased the market deficit of the registered pension plans from $163.7 million in 2008 to $1,064.1 million in 2009. In 2010, the combined deficit increased slightly to $1,068.3 million, improved in 2011 to a deficit of $997.2 million (the net result of actuarial assumption changes offset by a $150 million lump sum contribution and investment returns of 12.7%), increased to $1,156.5 million mainly as a result of investment returns of only 0.9% in 2012 while pension liabilities continued their upward trend, and then improved in 2013 to a deficit of $989.2 million, the net result of investment returns of 12.1% and special contributions of $66.6 million partly offset by actuarial assumption changes. In 2014, the combined deficit reduced to $729.5 million as a result of investment returns of 17.4% and a $150 million lump sum contribution, partially offset by updated actuarial assumptions; in 2015, the deficit was further reduced to $446.0 million as a result of investment returns of 11.9% in excess of a target return of 5.0% (4% plus CPI) and special contributions of $66.6 million; and in 2016 the deficit increased to $573.1 million mainly as a result of investment returns of 0.7%, falling short of the target return of 5.4%, partially offset by pension special payments of $78.7 million.

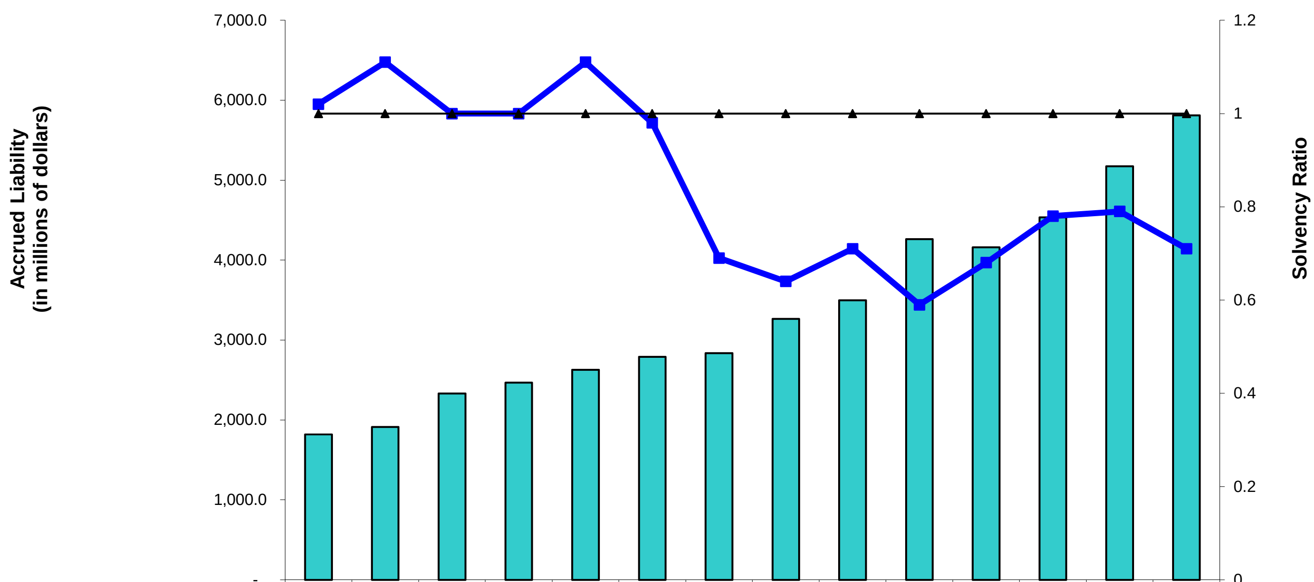
The going concern financial position of the registered pension plans and the pension reserve has worsened since 2008, moving from a small deficit overall, representing about 5.5% of going concern liabilities to a larger deficit overall representing about 11.9% of liabilities in 2016, though there has been a marked improvement since 2009 when the deficit represented over 34% of going concern liabilities. See the section “Status of the Pension Plan – In Perspective” for more detailed analysis of the components of the change in the pension deficit over the past 10 years.

The surplus (deficit) varies with the type of actuarial valuation and with the assumptions used to estimate the liabilities. The following section shows the impact of solvency and hypothetical wind-up assumptions on the surplus or deficit.

The Role of Solvency and Hypothetical Wind-up Valuations

As noted earlier, we are legally required to calculate the solvency and hypothetical wind-up actuarial valuations, which have different assumptions from the going concern valuation. The solvency valuation essentially determines the status of a pension plan as if it were to be wound up on the valuation date and requires that the liabilities be discounted at current market rates, rather than at long-term rates, but without indexing.

RPP
Solvency Ratio and Solvency Liabilities (without Escalated Adjustments)
as at July 1



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Solvency liabilities	1,820.0	1,911.1	2,330.2	2,467.6	2,628.4	2,788.7	2,833.8	3,264.2	3,496.8	4,262.7	4,159.0	4,535.2	5,174.0	5,810.9
Solvency Ratio	1.02	1.11	1.00	1.00	1.11	0.98	0.69	0.64	0.71	0.59	0.68	0.78	0.79	0.71
Solvency Ratio of 1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Solvency liabilities and solvency ratio for the RPP excludes the University of Toronto (OISE) Pension Plan prior to 2014.

The RPP solvency ratio (the ratio of assets to solvency liabilities) decreased from 0.79 at July 1, 2015 to 0.71 at July 1, 2016 mainly due to the adoption of the new prescribed mortality table reflecting improved life expectancies, a drop in the prescribed discount rates[17] and

[17] *Prescribed discount rates for solvency valuation purposes for active and LTD members not retirement eligible (transfer value basis) fell from 2.3% for 10 years and 3.8% thereafter at July 1, 2015 to 1.7% and 3.1% respectively. Prescribed discount rates for solvency valuation purposes for other members increased from 2.60% at July 1, 2015 to 2.85% at July 1, 2016.*

investment returns over the year that were lower than target. As of July 1, 2016, the plan had a solvency deficit of $1.68 billion versus a solvency deficit of $1.10 billion as of July 1, 2015. The main reasons for the current solvency deficit of the RPP include the unprecedented investment losses during 2008 and 2009, a continuing decline in interest rates that has resulted in a unprecedentedly low discount rates that must be used to value solvency liabilities, and lengthening life spans which required updated tables to be used for the mortality rates assumption in both 2011 and 2014.

As stated previously, the solvency ratio refers to the ratio of solvency assets to solvency liabilities (excluding indexation). A solvency ratio of 1.0 or higher means that at a particular point in time there is a solvency excess. A solvency ratio of less than 1.0 indicates that at a particular point in time there is a solvency deficit. If the solvency ratio is less than 0.85 at the time the valuation is filed with the regulators, an actuarial valuation must then be filed annually until such a point when the solvency ratio is above 0.85. Otherwise, valuations must be filed at least triennially. However, as a result of qualifying for stage 2 of the temporary solvency funding relief process, the effective date of the next required actuarial valuation to be filed with the regulators is July 1, 2017.

The hypothetical wind-up valuation extends the solvency valuation by adding in the indexing and incorporating early retirement windows. On a hypothetical wind-up basis, the RPP market deficit at July 1, 2016 would be $3.76 billion[18].

The RPP solvency ratio of 0.71 at July 1, 2016 would normally trigger large net solvency payments over a five year period. As noted earlier, the Government has put in place a two stage process that is intended to provide institutions in the broader public sector (which includes universities) with an opportunity to make net solvency payments over a longer period than would otherwise be required. The University was accepted to stage 2 of this process in 2014. Also noted earlier in this document (page 28), a revised pension contribution strategy reflecting plans to deal with the pension deficit was approved by the Business Board on May 3, 2012.

Under the amended solvency funding relief regulations, the University has elected an additional 3-year period during which the minimum special payment is the interest on the solvency deficit (to June 30, 2018). After the 3-year period, the solvency deficit would be

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[18] *There are in fact capacity constraints within the Canadian group annuity market that make it very unlikely that the indexed liabilities for a plan of this size could be settled through the purchase of indexed annuities. Based on Educational Notes prepared by the Canadian Institute of Actuaries, in such cases, the actuary may make a reasonable hypothesis on the manner in which benefits may be settled on wind-up. That could include a modification on the benefits provided such as converting from floating to fixed indexation. If such a change was made for this Plan with indexation fixed at 75% of the expected inflation underlying long-term Government of Canada bonds at the time of wind-up, the market would treat this as a non-indexed annuity with a fixed escalater. The impact would be to reduce the wind-up liabilities by approximately $1.04 billion.*

amortized over 7 years (the remaining period in the original 10-year period – July 1, 2018 to June 30, 2025).

The Ontario government has recently amended Ontario Regulation 178/11 under the Pension Benefits Act to provide additional “stage 3” solvency funding relief measures for certain public sector plans. Regulation 350/16 requires the University to make minimum special payments sufficient to liquidate 25% of the solvency deficiency over seven years and to cover interest applied on the remaining 75% of the solvency deficit not being amortized. Based on the current level of going concern special payments and the solvency funded status as of July 1, 2016, the amended solvency funding requirement is estimated to be approximately $15 million per year over seven years beginning July 1, 2018. The required minimum solvency payments will be identified in the next required filing of the actuarial valuation as at July 1, 2017.

Status of the Pension Plan – In Perspective

The RPP is in a market deficit of $573.1 million at July 1, 2016. This is in contrast to the small market deficit in the plan of $45.5 million at July 1, 2006 (RPP and RPP(OISE) combined), the beginning of the ten-year period being analyzed. This section looks at all the components that contribute to changes in the RPP's[19] financial status.

Investment performance is one of the key components of the financial health of the pension plan. If we look at the period from July 1, 2006 to July 1, 2016, investment earnings/(losses) was $1.57 billion, slightly lower than the target return of $1.65 billion for the period. However, if we exclude the 2009 investment result (the year in which financial markets performed worse than any year since the Great Depression), the actual return for this period was above target by $672 million, highlighting the magnitude that the low investment returns in 2009 had on the plan. **Fees and expenses** (primarily investment management fees and expenses) totalled $301 million.

During the same period from July 1, 2006 to July 1, 2016, **contributions** totalled $1.98 billion, which included $825 million of employer current service contributions, $462 million of employee current service contributions, $394 million in required special payments, and $300 million in additional lump sum payments.

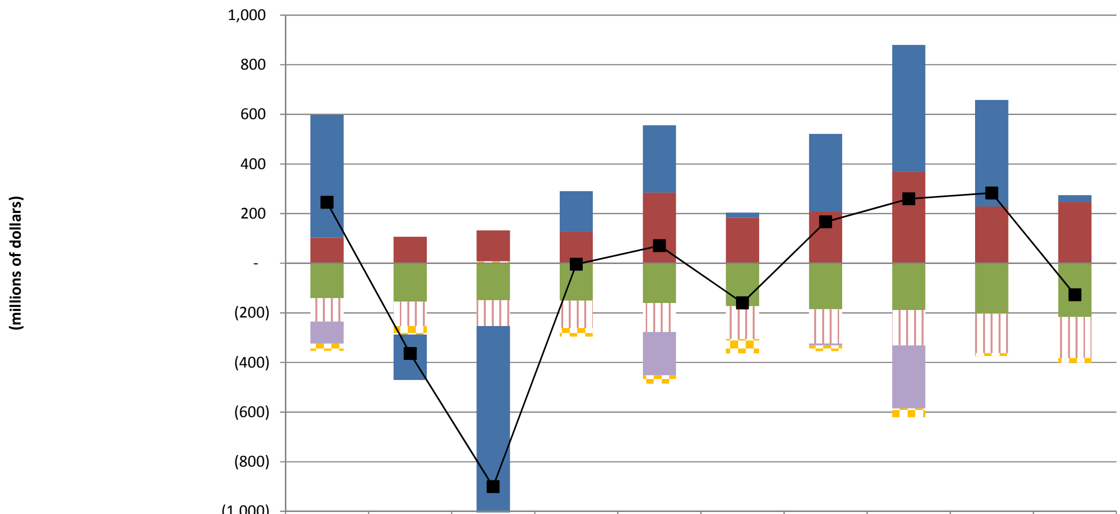
The **benefit payments** made from the plan during the period totalled $1.72 billion.

In addition to the above inflows and outflows of pension assets, the pension status is also impacted by changes to pension liabilities. During the above period, the pension deficit increased by just over $2.0 billion for these items. This increase in the deficit was comprised of $525 million related to **changes in actuarial assumptions/methods**, $1.26 billion of **benefits accrued**, and $271 million of **other changes** (i.e. interest on accrued benefits net of actual benefit payments, experience gains/losses, plan amendments, and transfers from other plans).

The following shows graphically the components of the changes in the market deficit for the RPP from July 1, 2006 to July 1, 2016:

[19] *RPP includes RPP(OISE) from 2015 onwards*

University of Toronto Pension Plan
Components of Changes in Pension Deficit for year ending July 1



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Net investment earnings (losses)	496	(183)	(779)	164	271	21	312	513	429	28
Contributions	102	107	124	126	285	183	209	368	229	246
Other	(29)	(34)	8	(35)	(33)	(58)	(23)	(35)	(12)	(20)
Changes in actuarial assumptions	(89)	-	-	-	(175)	1	(8)	(254)	-	-
Benefits accrued	(94)	(98)	(105)	(110)	(117)	(132)	(137)	(142)	(159)	(166)
Benefit payments	(141)	(155)	(149)	(150)	(160)	(174)	(186)	(189)	(203)	(217)
Decrease (increase) in deficit	246	(364)	(900)	(4)	71	(159)	167	260	284	(127)

Includes the OISE plan throughout the period presented

The following table shows which components have an impact on the pension deficit of the plan for the year ended July 1, 2016; it should be noted that whenever the change to both assets and liabilities is equal, there is no impact on the deficit:

Reconciliation of Funded Status - July 1, 2015 to July 1, 2016
University of Toronto Pension Plan

(millions of dollars)

	Assets [1]	Liabilities
July 1, 2015	**4,073.4**	**4,519.3**
University Current Service Cost	101.6	101.6
Member Contributions	63.9	63.9
University Special Payments *	78.7	-
Benefit Payments	(216.5)	(216.5)
Assets Transferred In	2.3	2.3
Net Investment Return / Interest *	28.0	258.5
Liability (Gain) / Loss *	-	(9.6)
Assumption/Method Changes *	-	(15.0)
July 1, 2016	**4,131.4**	**4,704.5**

[1] Market Value of Assets

* Impacts the pension deficit

Sensitivity

As stated previously, valuation results are based on demographic and economic assumptions. One of the key assumptions that is used to value both the going concern and solvency liabilities is the discount rate. This section will show the sensitivity of both the going concern and solvency liabilities and current service costs to changes in the discount rate.

Going concern

With low long-term interest rates, there continues to be pressure to lower the discount rate used to value going concern liabilities. If the going concern discount rate was 0.25% lower (5.5% instead of 5.75%) at July 1, 2016, the **going concern liabilities** would have been $4,876.9 million, an increase of $172.4 million. The resulting deficit would have been $745.5 million.

Similarly, if the going concern discount rate was 0.25% lower (5.5% instead of 5.75%), the **current service cost** (both employee and employer) would have been $10.0 million higher, $180.9 million rather than $170.9 million.

The University will be working with our actuaries over the coming year to determine an appropriate discount rate for the next filed actuarial valuation.

Solvency

As stated earlier, solvency discount rates are prescribed, and are impacted by current interest rates that would be used for settling the pension obligations. If the solvency discount rate was 1% lower, the **solvency liabilities** would be $6,784.0 million, an increase of $973.1 million (16.7%). If the solvency discount rate was 1% higher, the **solvency liabilities** would be $5,070.2 million, a decrease of $740.8 million (12.7%).

Conclusion

The pension deficit at July 1, 2016 has worsened somewhat from the previous year primarily due to investment returns of 0.7%, falling short of the target investment return of 5.4% (4.0% plus CPI) partially offset by significant pension special payments into the RPP of $78.7 million. The going concern deficit for the plan, including the pension reserve, has increased from 9.6% of liabilities at July 1, 2015 to 11.9% of liabilities at July 1, 2016. The solvency ratio decreased from 0.79 at July 1, 2015 to 0.71 at July 1, 2016 mainly due to the adoption of the new prescribed mortality table reflecting improved life expectancies, a drop in the prescribed discount rates and investment returns over the year that were lower than target.

The overall climate for defined benefit pension plans has not improved. Interest rates continue to be at historic lows, and longevity continues to increase, both of which contribute to an increased cost of providing the same pension benefit.

The Ontario government has recently amended Regulation 178/11 under the Pension Benefits Act (Regulation 350/16: Solvency Funding Relief for Certain Public Sector Plans) which will reduce the University's anticipated required solvency payments on a temporary basis. Additionally, the Ministry of Finance is engaging with stakeholders on permanent changes to the solvency funding regime.

Discussions continue within the University regarding a possible jointly sponsored pension plan for the University, and also at the provincial level regarding a possible multi-employer jointly sponsored defined benefit pension plan for interested Ontario universities.

Appendix 1

Links to Other Pension Documents

Pension Contribution Strategy

The pension contribution strategy approved by the Business Board on May 3, 2012 may be found at the following link:

http://www.governingcouncil.utoronto.ca/AssetFactory.aspx?did=8516

Pension Fund Master Trust – Statement of Investment Policies & Procedures

The Pension Fund Master Trust Statement of Investment Policies & Procedures approved by the Pension Committee on June 24, 2016 may be found at the following link:

http://finance.utoronto.ca/reports/pension/

Actuarial Reports for the Pension Plans

The full actuarial reports for each of the University of Toronto Pension Plan, the University of Toronto (OISE) Pension Plan (pre-merger), and the Supplemental Retirement Arrangement can be found at the following link:

http://finance.utoronto.ca/reports/pension/

Audited Financial Statements for the Registered Pension Plan

The audited financial statements for the University of Toronto Pension Plan (and the University of Toronto (OISE) Pension Plan pre-merger) can be found at the following link:

http://finance.utoronto.ca/reports/pension/

Appendix 2

Supplemental Retirement Arrangement

The Supplemental Retirement Arrangement (SRA), an unregistered arrangement, provides defined benefits for retired and deferred vested members whose benefits exceeded the Income Tax Act maximum pension at the time of their retirement or termination. The SRA provided defined benefits on the portion of salary in excess of the highest average salary at which the Income Tax Act maximum pension was reached, to a capped maximum pensionable salary of $150,000 per year. Beginning in 2014, the Income Tax Act maximum pension exceeded the pension determined at the capped maximum salary of $150,000 and the SRA was closed to any future accruals.

Beginning with its establishment effective July 1, 1996, assets were set aside in support of SRA liabilities. However, such assets were not held in trust. For financial reporting purposes the University from time to time appropriated funds which were set aside as a “fund for specific purpose” in respect of the obligations under the SRA. In accordance with an Advance Income Tax Ruling, which the University had received, such assets do not constitute trust property, are available to satisfy University creditors, may be applied to any other purpose that the University may determine from time to time, are commingled with other assets of the University, and are not subject to the direct claim of any members.

During 2014, the assets that had been set aside for the SRA were transferred to the RPP, with the SRA liabilities ($140.2 million as at July 1, 2014) to be funded in future on an annual basis via an annual base budget allocation in the operating fund as part of the Pension Special Payments budget. At July 1, 2016, the SRA liability had fallen to $132.1 million, a decrease from $136.2 million at July 1, 2015.